

Clinical Practice Guidelines for Cervical Screening in New Zealand 2020



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Contents

Foreword	1
PART A: INTRODUCTION	2
Introduction	3
Background	3
Development of these guidelines	4
Overview of cervical screening in New Zealand	5
Coverage	7
Cervical cancer incidence and mortality	7
When to screen and how often	11
Age to start screening	11
Age to stop screening	12
PART B: THE GUIDELINES	13
Using the guidelines	14
Glossary	15
Management of normal cervical cytology tests	18
Management of unsatisfactory cervical cytology tests	18
Management of abnormal cervical cytology tests	19
<i>Low-grade squamous abnormalities: ASC-US and LSIL</i>	19
<i>Colposcopic assessment of ASC-US/LSIL</i>	23
<i>Management of histologically confirmed LSIL (HPV/CIN 1)</i>	24
<i>High-grade squamous abnormalities: ASC-H / HSIL (CIN 2/3)</i>	25
<i>Colposcopic assessment of ASC-H/HSIL</i>	26
<i>Management of histologically confirmed HSIL (CIN 2 or 3)</i>	28
<i>Follow-up of people treated for HSIL (CIN 2 or 3)</i>	31
<i>Management of suspected invasion or SCC</i>	33
<i>Cervical glandular abnormalities: AGC/AIS/AC</i>	34
<i>Cytology report of cervical glandular abnormalities</i>	34
<i>Colposcopic assessment and treatment of glandular abnormalities</i>	35
<i>Follow-up of people with AIS</i>	37
Special clinical circumstances	38
<i>Pregnancy</i>	38
<i>People under 25 years</i>	39

<i>Abnormal vaginal bleeding in people under 25 years</i>	41
<i>Assessment and management of people with persistent abnormal vaginal bleeding</i>	41
<i>People over 40 years with normal endometrial cells</i>	45
<i>Immune deficiency</i>	46
<i>Hysterectomy</i>	48
<i>Exposure in utero to diethylstilboestrol</i>	50
Summary of indications for cytological review	50
References	52
PART C: GUIDANCE ON HPV TESTING	57
Introduction	58
Indications for HPV testing	58
HPV testing for indications outside of the NCSP Guidelines	59
Summary of indications for HPV testing	60
Bibliography for Part C: Guidance on HPV testing	61
APPENDICES	64
Appendix 1: Advisory and working group members	65
Appendix 2: AGREE tool	67

Foreword

The *Clinical Practice Guidelines for Cervical Screening in New Zealand 2020* have been developed for practitioners providing health services across the cervical screening pathway, including nurses, general practitioners, gynaecologists, cytologists and pathologists. The guidelines aim to assist providers to achieve best-practice outcomes when delivering cervical screening and colposcopy services.

These guidelines replace the *Guidelines for Cervical Screening in New Zealand* published in 2008.

While the guidelines are evidence-based where possible, they are a guide to best clinical practice. Clinicians should continue to exercise professional judgement and make decisions that reflect individual circumstances, in consultation with their patients.

Dr Jane O'Hallahan
Clinical director, National
Screening Unit

Dr Howard Clentworth
Clinical leader, colposcopy,
NCSP

Dr Margaret Sage
Clinical leader, pathology,
NCSP

PART A: INTRODUCTION

Introduction

Four key changes in this document are as follows:

1. In November 2019 the National Cervical Screening Programme (NCSP) raised the recommended commencement age for screening to 25 years for any person with a cervix or vagina who has ever been sexually active. People aged 20–25 years who have already commenced screening, including those with abnormal cytology, will be recalled and managed according to these guidelines.
2. A new section on abnormal bleeding does not wholly relate to the cervical screening pathway but has been included to assist medical practitioners in primary care with assessment, management and referral decisions. The most important message from this section is that symptomatic people need to be examined.
3. A new recommendation that people aged 70 years and older who were unscreened or under-screened prior to age 70 have two consecutive normal cytology samples (taken 12 months apart) before ceasing cytology screening. Unscreended and under-screened people in this age group are at increased risk of cervical cancer because of potential undetected cervical lesions.
4. A change to the recommendation for follow-up after successful treatment for high-grade squamous disease is discharge from colposcopy to primary care for a test of cure. Cytology and hrHPV testing should be performed 6 months post-treatment, with a repeat co-test (cytology and hrHPV testing) at a further 12 months to complete a test of cure. Where there are clinical concerns, colposcopy with hrHPV and cytology testing at 6 months post-treatment is recommended.

Other areas have been updated where further evidence and clinical experience have suggested that changes are required.

The Ministry of Health will update these guidelines when HPV primary screening is introduced.

Background

Cervical screening is important for any person with a cervix or vagina who has ever been sexually active, regardless of their sexual orientation, including people who are transgender or non-binary.

There is overwhelming evidence that the primary underlying cause of cervical cancer is persistent infection with high-risk types of human papillomaviruses (hrHPV), and that these viruses are primarily transmitted sexually. Most HPV infections resolve spontaneously, but those that persist can lead to the development of precancerous abnormalities, which, if untreated, may progress to cancer.

Cervical cancer has a long latency period, taking on average 10 to 20 years to develop. This means that screening for the detection of precursor (precancerous) lesions can be very effective for people who participate regularly in cervical screening.

New technologies introduced to cervical screening, such as liquid-based cytology (LBC) and HPV testing are increasingly important. Widespread vaccination will reduce the incidence of cervical cancer, but cervical abnormalities which still occur will be more

difficult to detect when they are less prevalent in the population, unless there are improvements in the sensitivity of screening tests.

HPV immunisation with Gardasil®4, which was used in New Zealand between 2008 and 2016, provides effective immunisation against hrHPV types 16 and 18, which cause 70 percent of cervical cancers. The 9-valent vaccine, Gardasil®9 has been used in New Zealand since 2017 and protects against nine types of HPV – seven that cause HPV-related cancers and two that cause genital warts. Ninety-two percent of cancers attributable to HPV can be prevented by Gardasil®9 (CDC, 2019).

Over time, HPV immunisation will have a marked effect on the incidence of and mortality from cervical cancer, will reduce the volumes of abnormal cytology and colposcopy assessments and will result in further changes to these guidelines.

Development of these guidelines

In 2005, the NCSP established a multidisciplinary team to update *Guidelines for the Management of Women with Abnormal Cervical Smears*, published in 1999 (Appendix 1). This work resulted in the *Guidelines for Cervical Screening in New Zealand*, published in 2008.

The team adopted an evidence-based methodology for this process recommended by the New Zealand Guidelines Group (NZGG). This involved an extensive review of the cervical screening literature, the development of clinical questions and group decisions on the content of the guidelines. In addition, they undertook a comprehensive search of international guidelines relating to the management of people with abnormal cervical cytology results, and critically appraised this information using the AGREE tool (see Appendix 2).

However, at that time, there was insufficient or inconsistent external evidence to provide direct answers to many relevant clinical questions. In these cases, the team developed recommendations by discussion, by using ‘considered judgement’ and by seeking the consensus of the entire group. The team graded its recommendations based on the strength of the evidence using the NZGG’s grading system (see ‘Using the guidelines’ in Part B).

The team used the Australian guidelines *Screening to Prevent Cervical Cancer: Guidelines for the management of asymptomatic people with screen detected abnormalities* (National Health and Medical Research Council (Australia), 2005) as a key resource.

In April 2010, the Ministry of Health added an update to the 2008 Guidelines, entitled *Guidance on HPV Testing Update 1: April 2010*. This set out clinical guidelines for the use of HPV testing in New Zealand in three clinical situations:

- as a triage test after low-grade cytology for people 30 years of age and over with no abnormalities in the previous five years
- as a test of cure after treatment (or follow-up) of high-grade squamous lesions

-
- for use in clinical assessment in colposcopy, particularly for people with discordant results.

The current 2020 guidelines incorporate an increase to the starting age for screening to 25 years, and update other areas where further evidence and clinical experience have suggested that changes are required.

The Ministry of Health will update the guidelines when HPV primary screening is introduced.

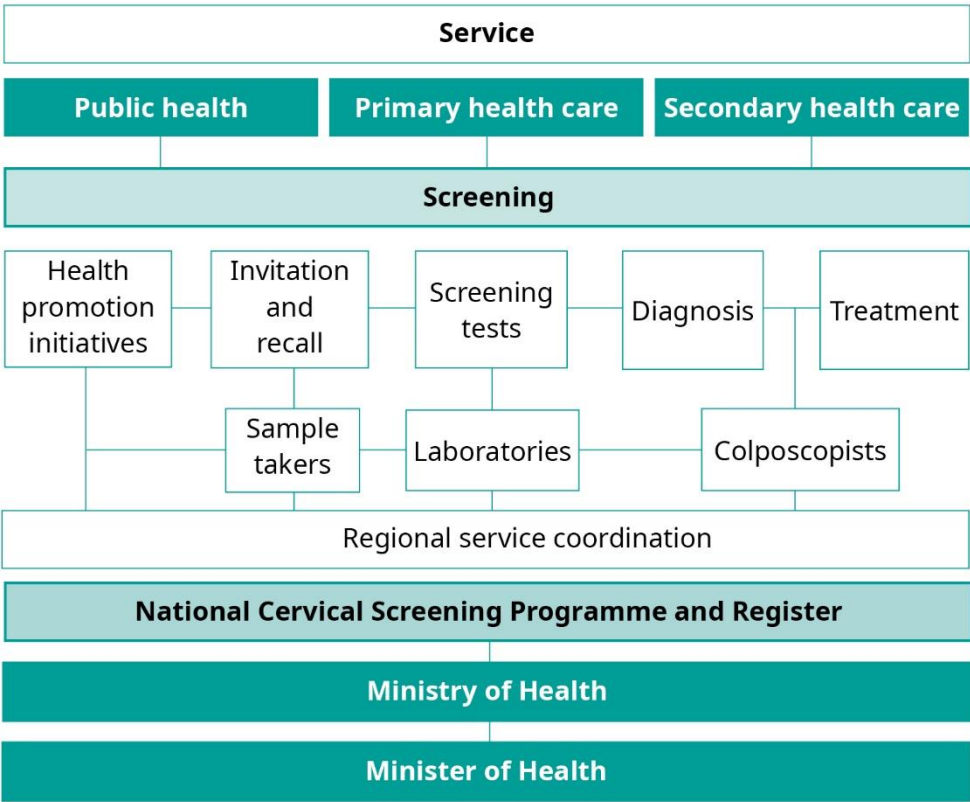
Overview of cervical screening in New Zealand

In New Zealand, approximately 160 people are diagnosed with cervical cancer every year, and 60 die from this largely preventable disease, despite the availability of an organised screening programme, the NCSP. Research has identified that over 85 percent of people who develop cervical cancer in New Zealand either have never been screened or have been screened infrequently (Sykes, 2019).

The NCSP was established in 1990 to reduce the number of people who develop cervical cancer and the number who die from it. Through routine screening at regular intervals, the programme aims to detect precancerous squamous cell changes that, if not treated, may lead to cancer.

The programme has a number of separate components (see Figure 1).

Figure 1: The screening pathway



Successful cervical screening requires a high standard of quality at each step in the screening pathway, from invitation and recall, through to cervical screening, laboratory testing, colposcopy and the management and information systems that support these processes. The Health (National Cervical Screening Programme) Amendment Act, which came into effect in 2004, underpins the NCSP's operations to ensure the co-ordination of a high-quality cervical screening programme in New Zealand.

Coverage

New Zealand is in the top five of OECD countries in terms of overall high cervical screening population coverage rates (Organization for Economic Co-operation and Development, 2019).

In June 2019, overall programme coverage in New Zealand was 71.4 percent for the total population. However, there are significant inequalities in coverage by ethnicity: as at June 2019 coverage was 66.8 percent for Māori, 66.6 percent for Pacific and 60.9 percent for Asian people. Coverage is lower among people living in the most deprived areas.

Cervical cancer incidence and mortality

Cervical cancer mortality began to decline many years before the introduction of the NCSP, probably reflecting opportunistic screening and improvements in treatment.

Since the introduction of the NCSP in 1990, the age-standardised incidence rate of invasive cervical cancer in women over 25 years of age has decreased substantially. Relative reductions have been similar in both Māori and non-Māori populations (Smith, Edwards, Canfell, 2017). However, between 1990 and 2014 invasive cervical cancer incidence did not decline in people aged 20–24 despite 25 years of cytology-based screening (see Figure 2, Figure 3, and Figure 4).

Figure 2: Five-year average cervical cancer incidence by age, 1987–2016

Source: Ministry of Health data from the NCSP Register

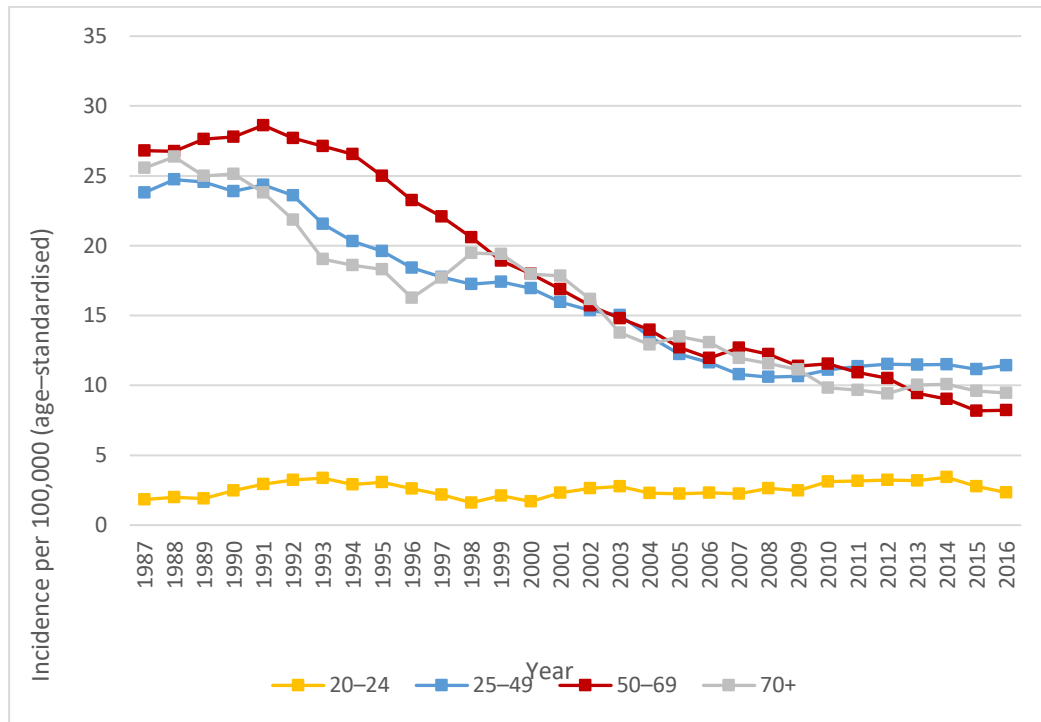


Figure 3: Māori five-year average cervical cancer incidence by age, 2000–2016

Source: Ministry of Health data from the NCSP Register

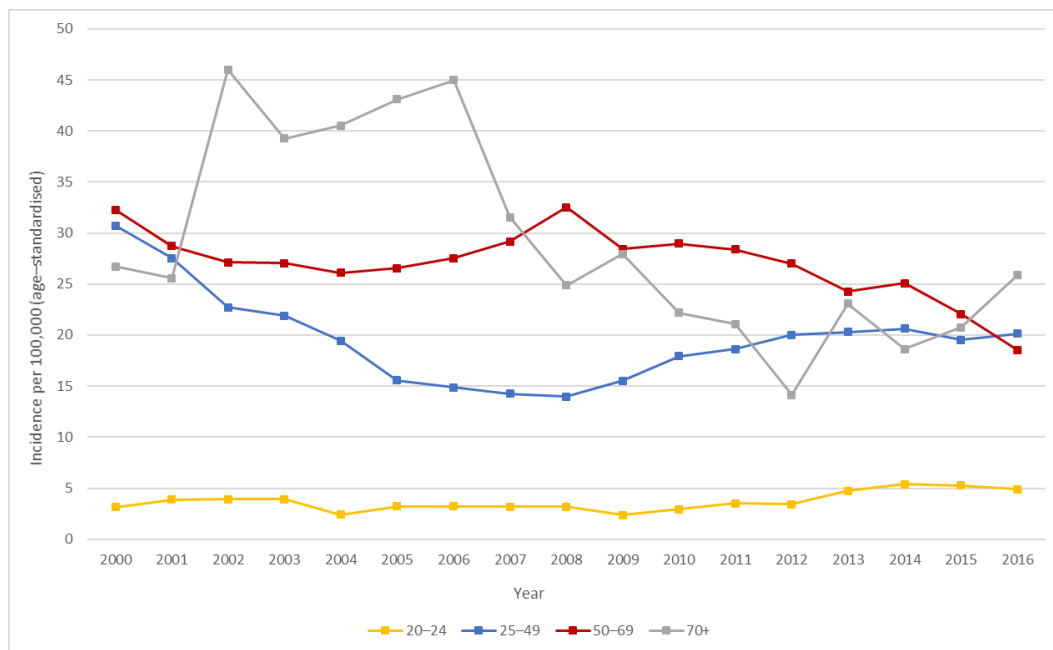


Figure 4: Non-Māori five-year average cervical cancer incidence by age, 2000–2016

Source: Ministry of Health data from the NCSP Register

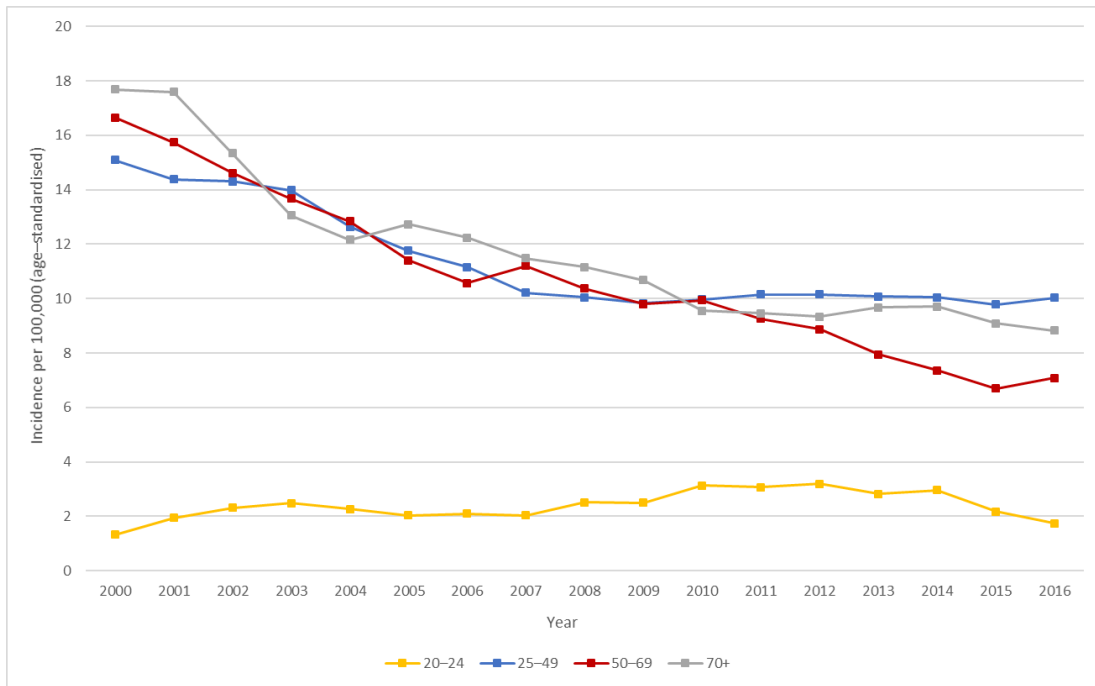
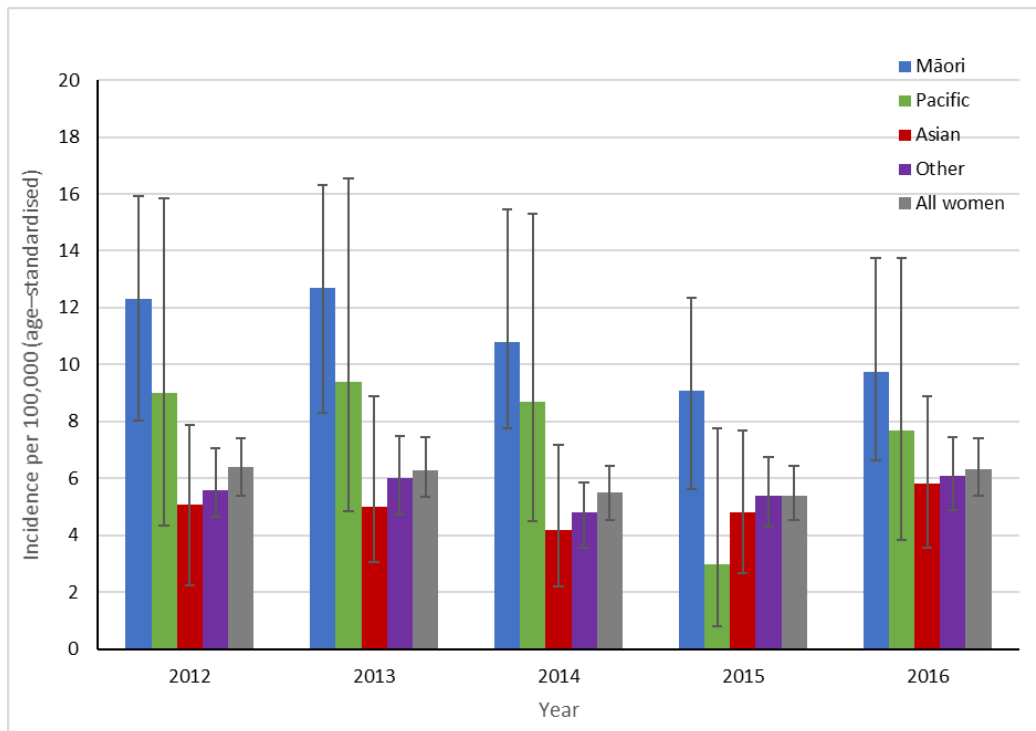


Figure 5: Age-standardised cervical cancer incidence by ethnicity, 2012–2016

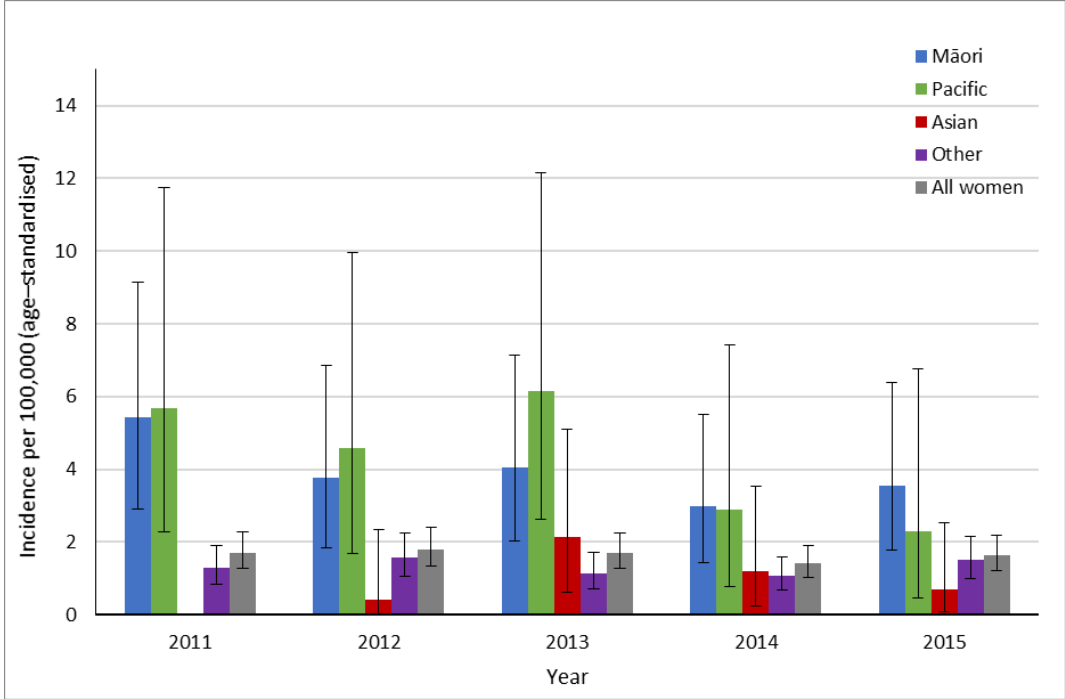
Source: Ministry of Health, 2016



Vertical bars represent 95 percent confidence intervals.

Figure 6: Age-standardised cervical cancer mortality rates by ethnicity, 2011–2015

Source: Ministry of Health, 2016



Vertical bars represent 95 percent confidence intervals.
 Note: no deaths were recorded for Asian people in 2011.

When to screen and how often

The NCSP policy on the screening age and interval is as follows.

Screening age and interval

Anyone with a cervix or vagina who has ever been sexually active should be offered three-yearly cervical screening from age 25 to age 69.

If this is the 'first ever' cervical cytology test, or more than five years have elapsed since the previous test, a second cytology test is recommended one year after the first, with three-yearly screening thereafter if both results are normal.

Cervical screening over age 70 years is recommended in people who are unscreened or have a lapsed screening history prior to age 70.

Clinical management of people under 25 years who have started screening

People under 25 who have already been screened (including those with normal cytology) will continue to be recalled for screening and referred and managed in the same way as people aged 25 to 69 years, according to the *Clinical Practice Guidelines for Cervical Screening in New Zealand 2020*.

Age to start screening

In 2004, the World Health Organization (WHO)'s International Agency for Research on Cancer (IARC) concluded that there was minimal benefit and potential treatment harm associated with cervical screening below age 25 years; it was recommended that organised screening programmes should not start cervical screening before 25 years of age (International Agency for Research on Cancer, 2005). Although treatment has a low complication rate, it is now recognised that the consequences of treatment complications are greater for younger people who have not completed their family than they are for older people (Kyrgiou, Koliopoulos, Martin-Hirsch et al, 2006; Sadler, Saftlas, Wang et al, 2004). In New Zealand, invasive squamous or adenocarcinoma of the cervix is rarely diagnosed in people under 25 years of age (Ministry of Health, 2019).

Australia, England, Wales, Scotland, Ireland, France, Belgium, Italy and Norway start screening at 25 years of age. Many other European countries, such as the Netherlands and Finland, start screening at age 30 years.

In line with international evidence and practice in other countries, in November 2019, the Ministry of Health raised the recommended commencement age for cervical screening in New Zealand from 20 to 25 years of age.

A summary of the evidence supporting the change is available on the National Screening Unit website: <https://www.nsu.govt.nz/health-professionals/national-cervical-screening-programme/age-range-change-cervical-screening>.

Age to stop screening

Many countries do not screen people aged over 60 or 65 years. People aged 65 and over who have had many normal cervical cytology tests, particularly those who have had three normal tests in the previous 10 years, are at low risk of developing cervical cancer. The current policy in New Zealand is to continue regular screening up to age 69 years. The Ministry of Health will review the exit age for screening when HPV primary screening is implemented.

People over 70 years of age who are unscreened or under-screened remain at risk of cervical cancer (Landy, 2015; Lynge, Lonnberg, Tornberg, 2017). It is therefore important to have adequate screening prior to ceasing screening at age 69. The NCSP's policy in this regard is as follows.

- People who have been regularly screened and who have had at least two consecutive normal cytology samples between 62 and 69 years can cease screening at age 69 years.
- People who have not been adequately screened at a younger age and who have not had two normal cytology samples reported between 62 and 69 years of age should have two cervical cytology samples taken 12 months apart, and can cease screening if both are negative.
- People aged 70 years and older who are unscreened should have two consecutive normal cytology samples taken 12 months apart before ceasing cytology screening.
- People with abnormal results at any age should follow the recommended NCSP guidelines for follow-up and management.

Note - The results of women over 70 years will be recorded on the NCSP Register, but health providers need to take responsibility for adequate follow-up in this group, as the NCSP Register may not provide recall back-up.

PART B: THE GUIDELINES

Using the guidelines

The following guidelines are intended as an aid to clinical practice, not as a substitute for clinical judgement. Clinicians should continue to manage patients on the basis of personal and family medical history and clinical signs and symptoms. The results of all cervical cytology and histology samples taken in New Zealand are recorded on the NCSP Register (a legislative requirement) regardless of whether such samples are taken in accordance with these guidelines or not.

These guidelines use technical terminology that will be familiar to many health professionals but may be foreign to those outside the health system. The glossary that follows explains the key terms and abbreviations.

The guidelines are presented as shown in the example below.

Example of a guideline

Assessment/ Report	Guideline	Evidence
Histologically confirmed low-grade squamous abnormalities.	Treatment is not recommended because such lesions are considered to be an expression of a productive HPV infection.	Grade C

In the table above, the first column gives the result of the cervical screening test or assessment, the second column provides guidelines for management and the third column gives a grading of the level of evidence on which the guideline is based. Potential grades are A, B, C, I and ✓, as given in the table below.

Grade	Details
A	The recommendation is supported by good evidence. The evidence is based on a number of studies that are valid, consistent, applicable and clinically relevant.
B	The recommendation is supported by fair evidence. This is based on relevant studies that are valid, but there are some concerns about the volume, consistency, applicability and/or clinical relevance of the evidence; however, the studies are not likely to be overturned by other evidence.
C	The recommendation is supported by expert opinion only. The evidence may be published or unpublished (eg, consensus guidelines).
I	No recommendation can be made. The evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.
✓	Good practice point: No external evidence is available. In this case, best practice recommendations are made by consensus, based on the experience of the Guideline Development Team, or feedback from consultation within New Zealand.

Glossary

AC	Adenocarcinoma. Cervical cancer arising from the glandular cells lining the endocervical canal rather than the squamous cells that cover the outer surface of the cervix
AGC	Atypical glandular cells (replaces the previously used term 'AGUS')
AIS	Adenocarcinoma in situ. High-grade precancerous change in the glandular (endocervical) cells of the cervix
ASC-US	Atypical squamous cells of undetermined significance
ASC-H	Atypical squamous cells – cannot exclude a high-grade squamous lesion
Biopsy	A sample of tissue taken during a colposcopy
CIN	Cervical intra-epithelial neoplasia. Abnormal squamous cell changes in the surface epithelial layers of the cervix. These changes are not invasive cancer, but a small proportion of cases would develop into cancer if not treated. CIN is graded as low-grade CIN 1 or high-grade CIN 2 or 3: CIN 3 is the most severe
Colposcopist	A health professional with expertise in colposcopy
Colposcopy	Examination using a colposcope. This magnifies the cervix and vagina so that a clinician can detect abnormal areas
Coverage	The proportion of people aged 25–69 years who have had a screening result recorded on the NCSP Register
Cytology test	Microscopic examination of cells from an LBC sample
Cytology review	A review of cytology and histology slides by a pathologist/cytologist. This may be undertaken during multidisciplinary case review by health professionals (eg, a pathologist, colposcopist, cytologist and colposcopy nurse)
D&C	Dilatation and curettage
DHB	District Health Board
Dysplasia	Older terminology referring to all grades of precancerous lesions: mild (CIN 1), moderate (CIN 2) or severe (CIN 3)

Ectocervix	The outer surface of the cervix, usually covered by squamous cells
Endocervix	The lining of the canal in the centre of the cervix, usually lined by endocervical glandular cells
Endometrium	The tissue lining the uterus
Histology	Microscopic examination of a sample of tissue
HPV	Human papillomavirus
hrHPV	High-risk human papillomavirus
HSIL	High-grade squamous intra-epithelial lesion (equivalent to CIN 2/3)
LBC	Liquid-based cytology. The type of collection system specimen used for both cytology and HPV testing. The sampled cells are put into a liquid preserving solution in a small plastic vial
Low-grade abnormality	Encompasses possible LSIL (ASC-US) and definite LSIL in cytology samples. In histology samples, 'low-grade' encompasses HPV infection and CIN 1
LSIL	Low-grade squamous intra-epithelial lesion involving mild changes encompassing HPV effect and CIN 1
MDM	Multidisciplinary meeting
NCSP	National Cervical Screening Programme
RANZCOG	Royal Australian and New Zealand College of Obstetrics and Gynaecology
SCC	Squamous cell carcinoma. A type of cervical cancer arising from squamous cells
Test of cure	HPV testing and cytology (co-testing) on two occasions 12 months apart. The person can return to three-yearly screening if HPV testing and cytology are negative on two occasions 12 months apart (ie, successful completion of the test of cure)
Transformation zone	The region of the cervix where the glandular (columnar) precursor cells have changed or are changing to squamous cells (a normal physiological process)

Triage	The clinical process of assigning people into follow-up or treatment pathways based on their clinical risk
Unsatisfactory cervical screening test	An inadequate test that cannot be assessed by the laboratory.
Type 1, 2 or 3 excision	Depending on the type of transformation zone and the length of the endocervix removed, an excision can be of type 1, type 2 or type 3. A type 1 excision is adequate for a purely ectocervical lesion, whereas a type 3 excision is required if the endocervical extent of the lesion is not visible
Vault sample	A sample taken from the top of the vagina in people who have had their cervix removed as a result of a hysterectomy

Management of normal cervical cytology tests

The cervical screening test is a screening test of asymptomatic people to detect and treat pre-invasive abnormalities of the cervix. If the first ever result is negative, a follow-up test is recommended in 12 months to reduce the risk of non-detection of a significant lesion due to a false negative result. If this second cervical screening test is also negative, recall should be every three years.

Guideline 1: Negative (normal) cervical cytology test

Cervical Cytology Result	Guideline	Evidence
Negative for a squamous or glandular intra-epithelial lesion or malignancy	Recall in 3 years for cervical cytology unless the result falls into one of the following two categories.	Grade B
Negative for a squamous or glandular intra-epithelial lesion or malignancy, but this is the first test, or more than 5 years have elapsed since the previous test	Recall in 12 months for cervical cytology.	Grade C
Negative for a squamous or glandular intra-epithelial lesion or malignancy, but with a previous abnormality	Recall according to the relevant guideline in this document.	

Management of unsatisfactory cervical cytology tests

An *unsatisfactory* cervical cytology test is inadequate for some reason, and therefore the laboratory cannot report it. The adequacy of the sample is based on the number of well-visualised, well-preserved squamous cells that have been sampled. Laboratories reading cervical cytology samples have a standardised procedure for assessing the adequacy of the sample. The presence or absence of cells from the endocervical canal/transformation zone is recorded in the report, but does not affect the adequacy of the test or the report recommendation.

Three main factors cause unsatisfactory samples:

- sample taking – inadequate numbers of cells sampled, contact bleeding or contaminants such as lubricant
- clinical factors eg, bleeding, inflammation or cytolysis
- laboratory technical processing issues.

An unsatisfactory cytology sample is recorded as a non-result on the NCSP Register. After three consecutive unsatisfactory samples colposcopy is recommended to exclude a high-grade lesion as the person is inadequately screened.

Guideline 2: Unsatisfactory cervical cytology tests

Cervical cytology result	Guideline	Evidence
Unsatisfactory	Repeat the test after 4–6 weeks and before 3 months. Refer for colposcopy after 3 consecutive unsatisfactory cytology reports. In people who are post-menopausal, postnatal or breastfeeding give a course of vaginal oestrogen cream nightly for 2–3 weeks prior to repeating the cytology test.	Grade C

Management of abnormal cervical cytology tests

With the introduction of the LAST terminology (Darragh, Colgan, Cox et al, 2012) to New Zealand in 2020, squamous lesions in cervical biopsies are reported in the form of 'LSIL (CIN 1)' or 'HSIL (CIN 2/3)'.

Abnormal results reported outside of New Zealand including hysterectomy information can usually be added to the NCSP Register if a copy of the cytology or histology result or a specialist letter that documents the result is provided to NCSP Register staff. Refer to 3.2 Recall Process, Overseas Test Results in Section 3 of the National Policy and Quality Standards – Cervical Screening <https://www.nsu.govt.nz/health-professionals/national-cervical-screening-programme/policies-and-standards>.

Low-grade squamous abnormalities: ASC-US and LSIL

Cervical cancer is a rare outcome after a low-grade abnormality (Woodman, Collins & Young, 2007; Mitchell, 2005). A diagnosis of cancer after a low-grade cytology result can occur for any of the following reasons: sampling error (the abnormal cells were not picked up by the sampling device, or not transferred to the sample vial, or not selected for examination by sample processing), non-detection or misinterpretation at cytology reporting, or true progression over time from a low-grade intra-epithelial abnormality to cancer.

Studies indicate that people with ASC-US who are also hrHPV positive are at similar risk of HSIL (CIN 2/3) as people with LSIL (Cox, Schiffman, Solomon, 2003). These groups show similar high regression rates and are managed similarly.

Low-grade cytology is a manifestation of a viral infection that will resolve spontaneously in the majority of people (Moscicki, Schiffman, Kjaer et al, 2006; Schiffman, Castle, Jeronimo et al, 2007). For people under 30 years of age, the recall timeframe is 12 months, given the evidence that the median time for clearance of HPV infection is 6–18 months (Plummer, Schiffman, Castle et al, 2007) - see Guideline 3. HPV testing is not used in this age group because the positivity rate is too high for the test to be a good way of identifying people who need referral for colposcopy.

People aged 30 years and over with a hrHPV infection are at increased risk of developing a high-grade lesion, because the infection is more likely to be persistent (Castle, Schiffman, Herrero et al, 2005). HPV triage for people in this age group with a first ASC-US/LSIL cytology result is therefore of greater benefit than repeated cytology to assess the underlying risk of HSIL (CIN 2/3) (Arbyn, Sasieni, Meijer et al, 2006; Ronco, Cuzick, Segnan et al, 2007). See Flowchart 1.

Clinicians should advise all people of the significance of their low-grade cytology results and the low risk of harboring or developing cancer. If a person is unduly anxious, or specifically requests specialist reassurance, referral for colposcopic assessment may alleviate their anxiety, bearing in mind that this is not a complete safeguard against a diagnosis of underlying HSIL (CIN 2/3) or cervical cancer.

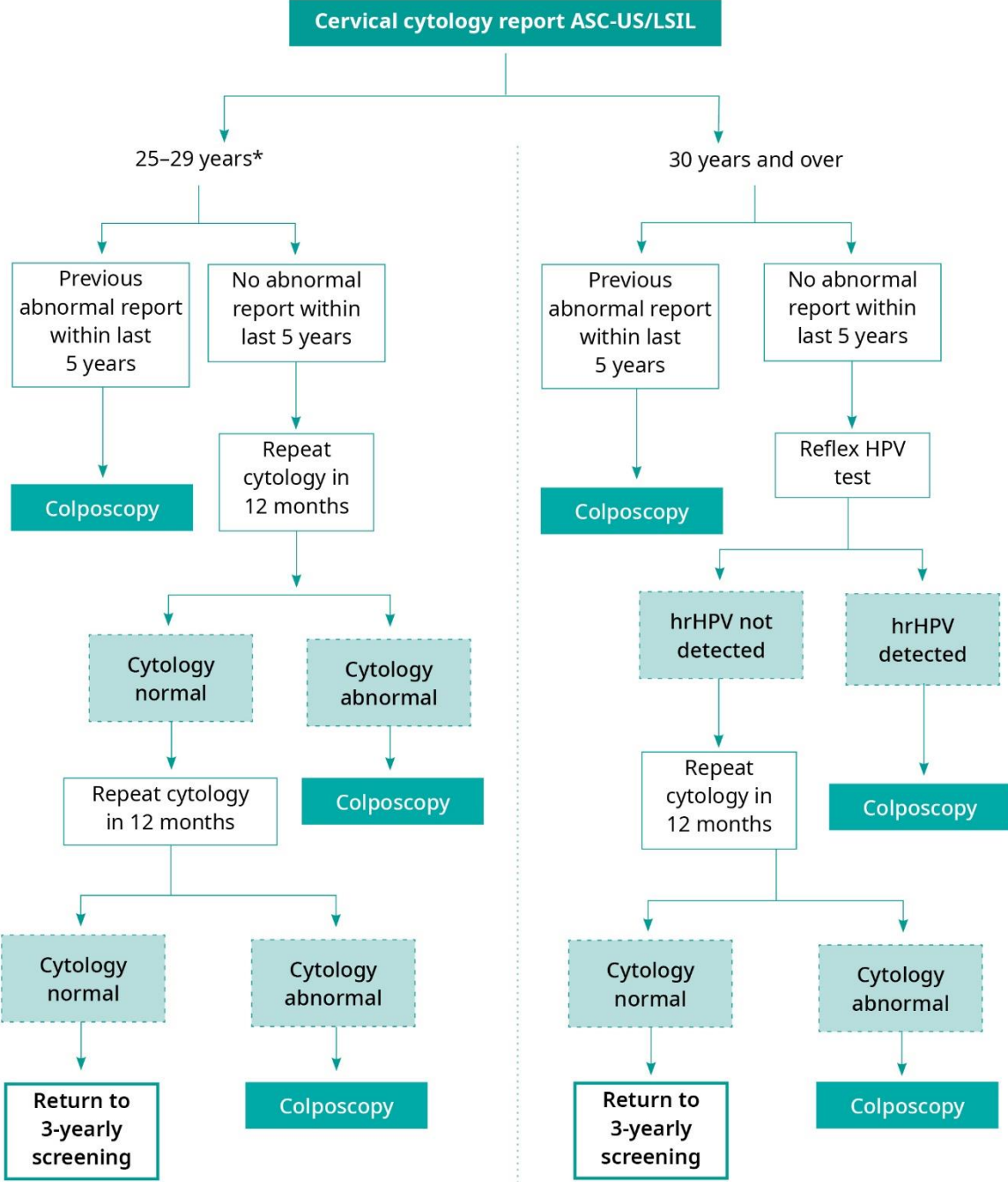
Where a clinician finds symptoms suspicious of cervical cancer or is concerned about the clinical appearance of the cervix, the person must be investigated appropriately with colposcopy irrespective of the cytology result.

Guideline 3: Cervical cytology report ASC-US/LSIL (see Flowchart 1)

Cervical cytology result	Guideline	Evidence
ASC-US/LSIL	<p>People aged 25–69 years with ASC-US/LSIL who have had an abnormal cytology or histology report within the last 5 years</p> <p>Refer for colposcopy.</p>	Grade C
	<p>People aged 25–29 years with ASC-US/LSIL who have had no abnormal cytology or histology reports within the last 5 years</p> <p>Refer to colposcopy if there has been a prior high-grade abnormality more than 5 years previously. If there has been no previous high-grade abnormality, repeat the test in 12 months.</p> <p>If the 12-month repeat cytology test is reported as:</p> <ul style="list-style-type: none"> • negative – repeat the test in 12 months (ie, 24 months after the index cytology test) • ASC-US/LSIL – refer for colposcopy • HSIL or ASC-H– refer for colposcopy. 	Grade C
	<p>If the next 12-month repeat cytology test (ie, 24 months after the index result of ASC-US/LSIL) is reported as:</p> <ul style="list-style-type: none"> • normal – return to 3-yearly screening • abnormal – refer for colposcopy. 	Grade B

Cervical cytology result	Guideline	Evidence
	<p>People aged 30 years and over with ASC-US/LSIL and no abnormal cytology or histology reports within the last 5 years have a reflex hrHPV test added on by the laboratory</p> <p>If the reflex hrHPV test is:</p> <ul style="list-style-type: none"> • negative – repeat cytology in 12 months. If the repeat cytology is: <ul style="list-style-type: none"> – normal – return to normal 3-yearly screening – abnormal – refer for colposcopy • positive – refer for colposcopy. 	Grade C

Flowchart 1: Management of low-grade abnormalities: ASC-US or LSIL



* This includes people <25 years who have already started screening.

Colposcopic assessment of ASC-US/LSIL

Colposcopy assessment and management of people with a cytology result of ASC-US/LSIL should comply with the guidelines published by RANZCOG and the Australian Society of Colposcopy and Cervical Pathology (ASCCP) (RANZCOG, 2001).

A fluctuating status between low-grade change and negative cytology is not uncommon, but the significance of this is unclear. It could reflect a transition from active HPV infection to resolution followed by re-infection, or there could be an underlying persistent lesion that is not being consistently sampled or detected by cytology. HrHPV testing may help with further management.

Guideline 4: Colposcopic assessment of ASC-US/LSIL (see Flowchart 2)

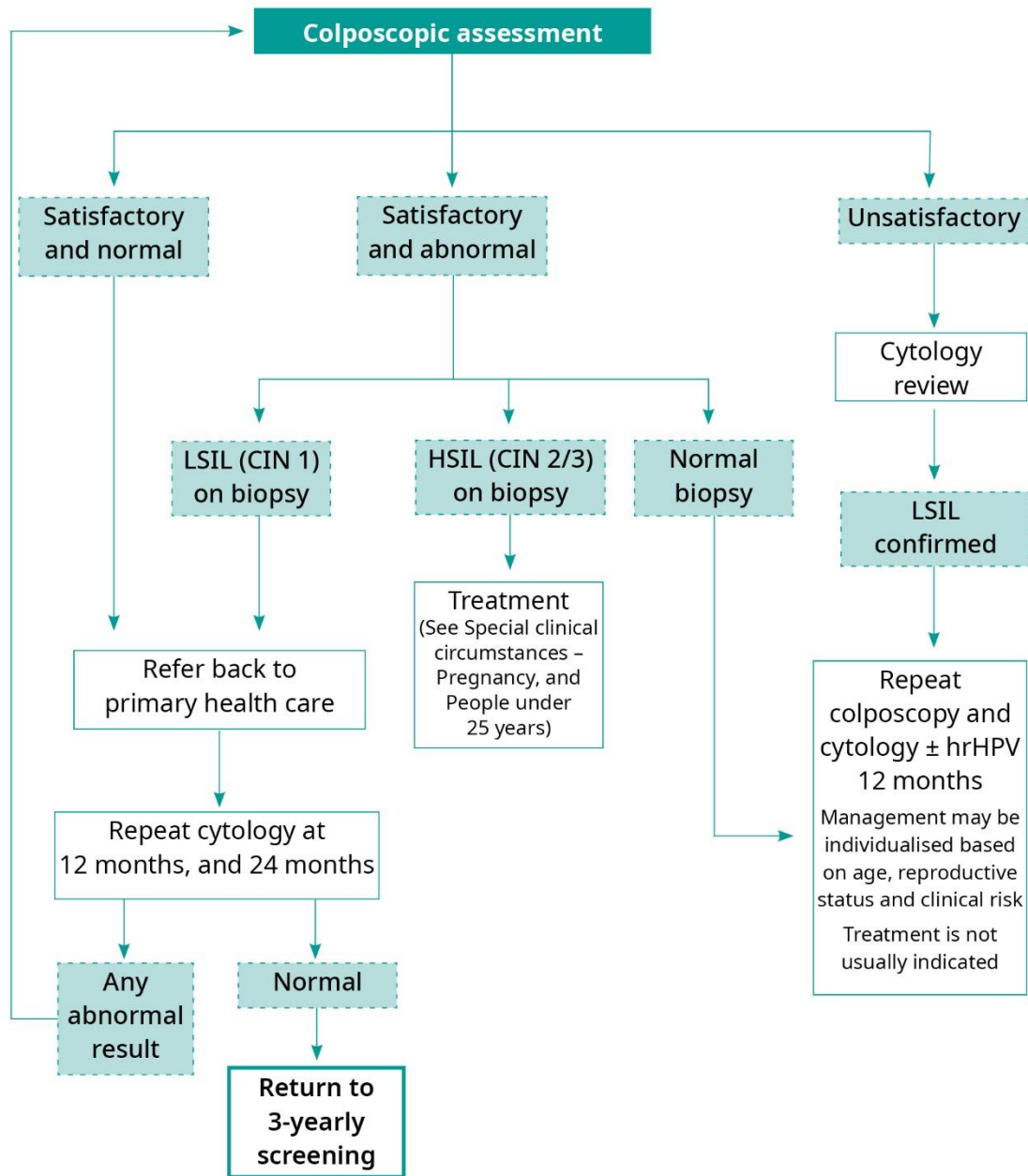
Colposcopic assessment	Guideline	Evidence
Satisfactory and normal	Refer back to the sample taker for 2 annual cytology tests after discharge from colposcopy. If either test is abnormal, refer for repeat colposcopy. If both tests are normal, resume regular 3-yearly screening.	Grade C
Satisfactory and abnormal	Perform a target biopsy to make a diagnosis.	Grade C
Unsatisfactory	Cytology review is recommended. If low-grade cytology is confirmed on review, undertake repeat colposcopy, cytology and hrHPV testing, as appropriate, in 12 months. Management may be individualised, based on age, reproductive status and clinical risk. Treatment is not usually indicated.	✓ Grade C

Management of histologically confirmed LSIL (HPV/CIN 1)

Guideline 5: Histologically confirmed LSIL (HPV/CIN 1) (see Flowchart 2)

Histology Result	Guideline	Evidence
Histologically confirmed low-grade squamous abnormalities	Treatment is not recommended, because such lesions are considered to be an expression of a productive HPV infection.	Grade C
	Refer back to the sample taker for repeat cytology at 12 and 24 months. A return to regular 3-yearly screening is recommended if both tests are negative.	Grade C
	Refer back to colposcopy if either repeat test shows ASC-US/LSIL or a higher degree of abnormality (ie, ASC-H or HSIL, AGC or AIS, or possible/definite invasive malignancy).	

Flowchart 2: Colposcopic management of low-grade cytology (ASC-US/LSIL)



Note: Colposcopists may vary these guidelines on the basis of hrHPV status.

High-grade squamous abnormalities: ASC-H / HSIL (CIN 2/3)

This category encompasses cases with a definite prediction of HSIL (CIN 2/3) as well as cases that are suspicious of HSIL (CIN 2/3), without being definite (ASC-H - Atypical squamous cells, cannot exclude HSIL). The finding of a high-grade result on cytology carries a high risk of significant cervical disease.

The main objective of the NCSP is to detect high-grade abnormalities in order to treat these effectively and prevent cervical cancer. People with untreated HSIL (CIN 3) lesions are at high risk of cervical cancer (McCredie, Sharples, Paul et al, 2008; Moscicki,

Schiffman, Kjaer, et al, 2006). HSIL (CIN 2) lesions are more heterogeneous and variable in cancer potential than HSIL (CIN 3) (Schiffman, Castle, Jeronimo et al, 2007; Moscicki, Schiffman, Kjaer et al, 2006).

Using the Bethesda reporting system terminology in cytology reports, high-grade in-situ squamous lesions in cytology samples are usually reported as 'HSIL. The features are consistent with CIN 2 or CIN 3'. Laboratories may elect to subcategorise HSIL into HSIL (CIN 2) and HSIL (CIN 3) in cytology reports if they wish to do so.

In histology reports, HSIL (CIN 2 and CIN 3) are usually reported as separate diagnoses, although it is recognised that this distinction is subjective and not reliable to permit clear stratification of risk (Carreon, Sherman, Guillen et al, 2007). HSIL (CIN 2) is generally the threshold for treatment. Exceptions include people under 25 years of age with histologic HSIL (CIN 2), who (after MDM review) are often managed conservatively because of high regression rates. In pregnancy, treatment for HSIL (CIN 2) and/or HSIL (CIN 3) is usually deferred until the post-partum period.

Guideline 6: Cervical cytology report ASC-H or HSIL

Cervical Cytology Result	Guideline	Evidence
ASC-H or HSIL	Refer for colposcopy and a targeted biopsy, where indicated.	Grade B

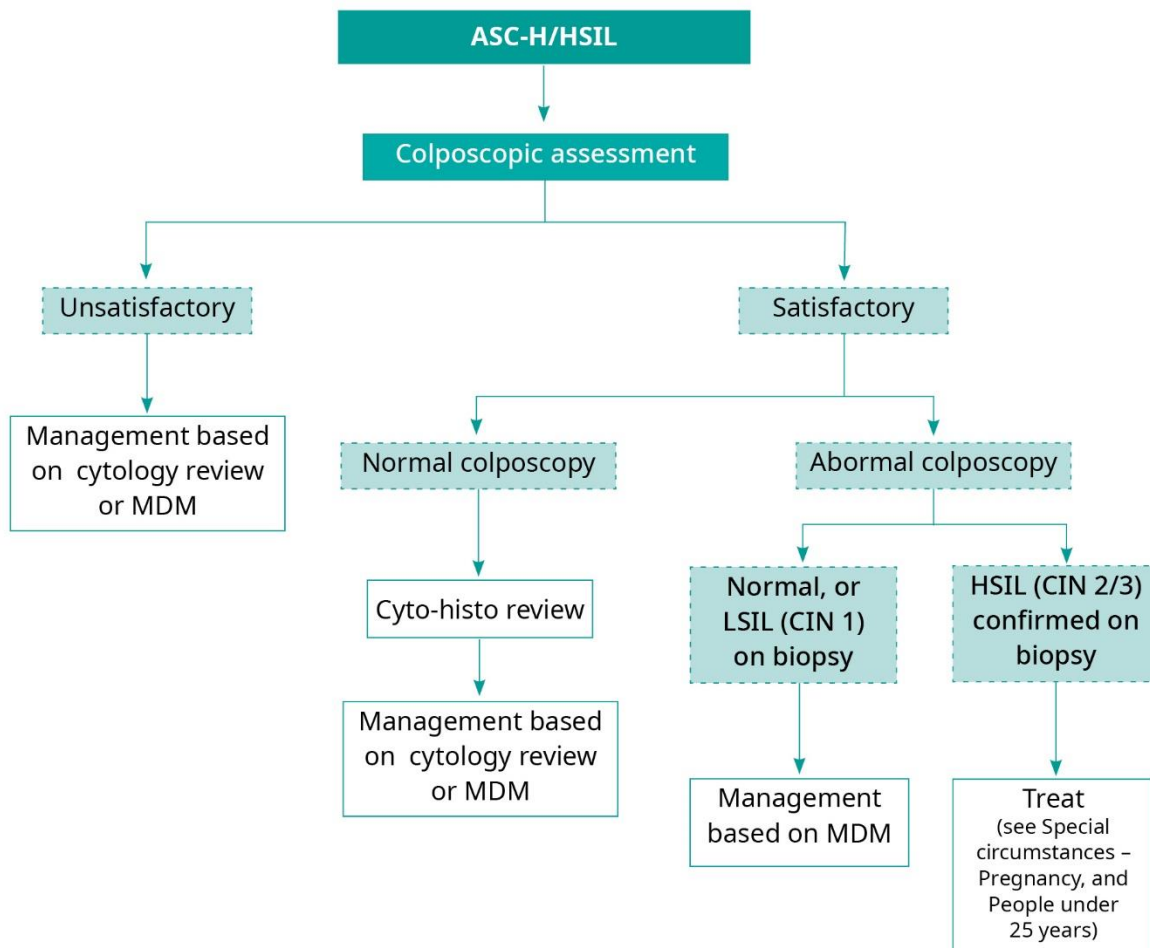
Colposcopic assessment of ASC-H/HSIL

A significant number of lesions can be missed on colposcopic impression (Gage, Hanson, Abbey et al, 2006; Jeronimo, Schiffman, 2007). Where cytology is ASC-H or HSIL but colposcopic examination of the cervix shows no sign of any abnormality, there should be careful clinical inspection and colposcopy of the entire lower genital tract, and a review should be undertaken of possible sites of origin for neoplastic cells in the upper genital tract (National Cervical Screening Programme,1999).

Guideline 7: Colposcopic assessment of ASC-H/HSIL (see Flowchart 3)

Colposcopic Assessment	Guideline	
Satisfactory and abnormal colposcopy	<p>Undertake a targeted biopsy for histology.</p> <p>Note: For 'See and treat' see Guideline 8.</p> <p>Where the biopsy confirms CIN 1, manage based on MDM review.</p>	Grade B
Satisfactory and normal colposcopy or negative biopsy	<p>Cytology review is recommended.</p> <p>If the review confirms high-grade abnormalities, repeat colposcopy and cytology within 3 months.</p> <p>If colposcopy and cytology are normal at 3 months, repeat cytology in 12 months.</p> <p>If colposcopy or cytology is LSIL at 3 months, individualise management based on an MDM review.</p> <p>If colposcopy or cytology is HSIL (CIN 2/3) at 3 months, treatment is indicated (refer to Guideline 8).</p> <p>As Part C: Guidance on HPV testing indicates, HPV testing should be used in colposcopy to assist with the management of people with discordant results.</p>	Grade C ✓
Unsatisfactory colposcopy	<p>Cytology review is recommended.</p> <p>If the review confirms ASC-H/HSIL, a type 3 excision is recommended.</p> <p>If the review confirms normal or ASC-US or LSIL, manage based on an MDM review.</p> <p>As Part C: Guidance on HPV testing indicates, HPV testing can be used at colposcopy to assist with the management of people with an unsatisfactory colposcopy.</p>	Grade C ✓

Flowchart 3: Management of high-grade abnormalities: ASC-H or HSIL



Management of histologically confirmed HSIL (CIN 2 or 3)

No substantial differences have been found between the different treatment modalities in terms of reducing cancer risk (Martin-Hirsch, Paraskevaidis, Kitchener, 1999; Kalliala, Nieminen, Dyba, 2007; Nuovo, Melnikow, Willan et al, 2000). Evidence suggests that all excisional treatment methods are associated with a small but real increase in long-term adverse obstetric outcomes, including pre-term delivery, low birth weight and premature rupture of membranes (Kyrgiou, Koliopoulos, Martin-Hirsch et al, 2006; Sadler, Saftlas, Wang et al, 2004; Crane, 2003). The available data indicates a significantly increased risk if the excision depth is more than 10mm (Kyrgiou, Koliopoulos, Martin-Hirsch et al, 2006). This evidence reinforces the need for caution when treating young people with mild cervical abnormalities and supports management by surveillance.

Follow-up after treatment serves to identify both complications of treatment and recurrent disease, which may be the result of inadequately treated disease, persistent disease or new infection. People treated for HSIL (CIN 2/3) are at increased risk of developing further high-grade disease and invasive cancer (Soutter, Sasieni, Panoskaltsis, 2006; Mitchell & Hocking, 2002). Persistence and recurrence rates are greatest in the initial two years following treatment, but the risk has been found to persist for at least 10 years after initial

treatment (Soutter, Sasieni, Panoskaltsis, 2006; Kalliala, Anttila, Pukkala et al, 2005; Flannelly, Bolger, Fawzi et al, 2001; Arbyn, Sasieni, Meijer et al, 2006).

Treatment failure rates have been reported to average around 10 percent (Arbyn, Sasieni, Meijer et al 2006). Involved excision margins after an excision biopsy are a risk factor for treatment failure (Flannelly, Bolger, Fawzi et al, 2001). The risk of further high-grade disease and invasive cervical cancer increases with age (Mitchell & Hocking, 2002; Flannelly, Bolger, Fawzi et al, 2001).

Guideline 8: Management of people with histologically confirmed HSIL (CIN 2 or CIN 3)

Histology Result	Guideline	Evidence
HSIL (CIN 2 or 3)	Treat in order to reduce the risk of developing invasive cervical carcinoma.	Grade A
Treatment	Guideline	
Ablative therapy	<p>Ablative therapy may be considered if:</p> <ul style="list-style-type: none"> colposcopic assessment is satisfactory a targeted biopsy has confirmed the diagnosis there is no evidence of invasive cancer on cytology, colposcopic assessment or biopsy there is no evidence of a glandular lesion on cytology, biopsy or colposcopy the entire lesion can be visualised. 	Grade C
Cryotherapy	Cryotherapy is not recommended.	Grade B
Type 1, 2 or 3 excision	<p><u>Loop excision</u></p> <p>Avoid excess diathermy artefact when using diathermy loops to allow comprehensive pathological examination, including margin status.</p>	Grade C
	<p><u>Cone biopsy</u></p> <p>A type 3 excision may be necessary to treat people with high-grade squamous lesions. Indications include:</p> <ul style="list-style-type: none"> failure to visualise the upper limit of the cervical transformation zone in a person with a high-grade squamous abnormality on the referral cervical cytology test (ie, unsatisfactory colposcopy) suspicion of an early invasive cancer on cytology, biopsy or colposcopic assessment 	Grade C

	<ul style="list-style-type: none"> the suspected presence of an additional glandular abnormality (eg, AIS) on cytology or biopsy (ie, a mixed lesion). Pay careful attention to tailoring treatment to the individual, taking into account the size, extent, situation and severity of the lesion. 	
Hysterectomy	<p>Hysterectomy is not generally indicated for the management of HSIL (CIN 2 or 3) alone. If performed for concurrent clinical indications, the following conditions must be met:</p> <ul style="list-style-type: none"> colposcopic assessment is satisfactory a targeted biopsy has confirmed the diagnosis there is no evidence of invasive cancer on cytology, colposcopic assessment or biopsy there is no evidence of a glandular lesion on cytology or biopsy or colposcopy the entire lesion can be visualised. 	Grade B
See and treat	<p>Consider 'see and treat' for high grade lesions, if this seems to be the only opportunity to undertake treatment and the following apply:</p> <ul style="list-style-type: none"> circumstances are appropriate or immediate treatment is necessary the colposcopic examination is consistent with the referral the limits of the lesion are visible the whole abnormality can be excised there is no suspicion of invasion there is an excisional specimen available for histological examination (ie, no ablative therapy). 	Grade C
People who plan to have children	<p>Local ablative or excisional treatments should destroy or remove abnormal tissue to a depth of at least 7 mm. There is no clearly superior method of fertility-sparing treatment for HSIL (CIN 2 and 3).</p>	Grade B

Follow-up of people treated for HSIL (CIN 2 or 3)

HrHPV testing has a high sensitivity for detecting persistent HSIL (CIN 2/3) post-treatment (Arbyn, Sasieni, Meijer et al, 2006; Paraskevaidis, Arbyn, Sotiriadis et al, 2004; Zielinski, Bais, Helmerhorst et al, 2004), and when used as a test of cure allows a safe pathway for women successfully treated for HSIL (CIN 2/3) to return to three yearly cytology screening.

All people who have been treated for a high-grade squamous lesion should have hrHPV testing as part of their follow-up. Follow-up after successful treatment of high-grade squamous disease is discharge from colposcopy to primary care for a test of cure. Cytology and hrHPV testing should be performed 6 months post-treatment, with a repeat co-test (cytology and hrHPV testing) at a further 12 months to complete a test of cure. Where there are clinical concerns, colposcopy with hrHPV and cytology testing at 6 months post-treatment is recommended.

If the HPV test is positive 6 or 18 months after treatment, they should be re-referred to colposcopy to ensure that treatment has been complete. If the colposcopic evaluation is negative, they should have annual HPV and cytology co-testing until they have two consecutive negative co-tests a year apart (ie, two normal cytology and two negative hrHPV test results). Following successful completion of a test of cure, they can return to 3-yearly screening.

Some people remain hrHPV-positive with negative cytology. The risk of completely treated people with negative cytology but persistent hrHPV having high-grade abnormalities declines with time, but never returns to the same level of risk as for hrHPV-negative people.

People treated for high-grade squamous lesions before introduction of the hrHPV test of cure as a regular part of post-treatment follow-up should be offered a test of cure. If they have two normal cytology tests and two negative hrHPV tests 12 months apart, they can return to 3-yearly screening.

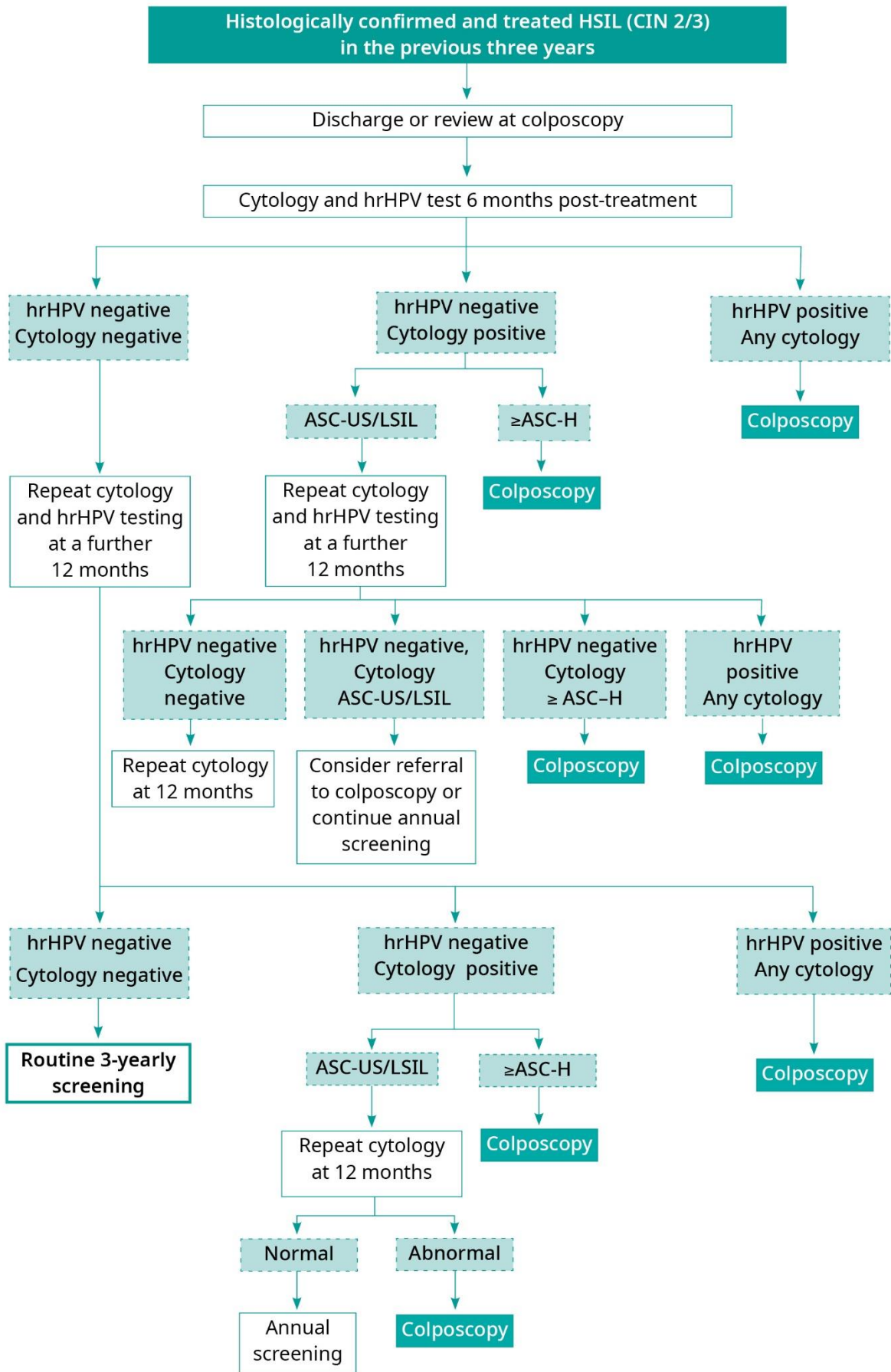
People treated for HSIL (CIN2/3) who have been cytologically negative repeatedly for over 3 years and are found to be hrHPV positive should be followed up annually with cytology and hrHPV testing.

Refer to Part C: Guidance on HPV testing and Flowchart 4 and Flowchart 5 in this section.

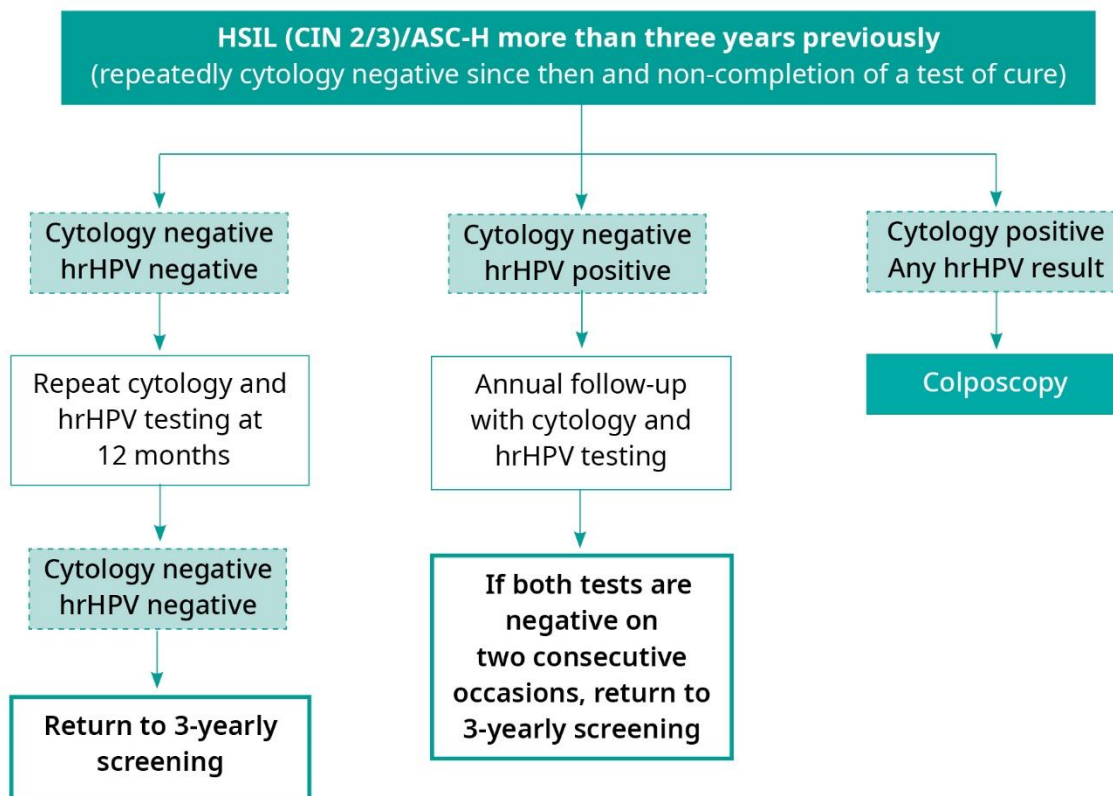
Guideline 9: Follow-up of people treated for HSIL (CIN 2/3)

Follow-Up	Guideline	Evidence
Routine follow-up	<p>Ensure a person treated for HSIL (CIN 2 or 3):</p> <ul style="list-style-type: none">• has HPV and cytology co-testing at 6 and 18 months post-treatment as part of their follow-up.• If HPV testing and cytology (co-testing) are negative on two occasions 12 months apart (ie, successful completion of the test of cure), they can return to 3-yearly screening. <p>Any symptoms should be appropriately managed.</p>	Grade B

Flowchart 4: HPV testing after treatment for HSIL (CIN 2/3) in the previous three years



Flowchart 5: HPV testing after HSIL (CIN 2/3)/ASC-H more than three years previously, with subsequent negative cytology and non-completion of a test of cure



Management of suspected invasion or SCC

Guideline 10: HSIL with suspected invasion or SCC

Cervical Cytology Result	Guideline	Evidence
HSIL with suspected invasion or SCC	Refer for urgent assessment to a colposcopist or oncologist.	Grade B

Cervical glandular abnormalities: AGC/AIS/AC

In New Zealand, and internationally, glandular lesions are now estimated to represent 15–20 percent of invasive cervical cancers (Lewis, Almendral, Neal et al, 2008; Bulk, Visser, Rozendaal et al, 2005; Pak, Martens, Bekkers et al, 2007).

Cervical screening is less effective at preventing cervical AC compared to SCC because of the limitations of the cervical cytology test (Azodi, Chambers, Rutherford et al, 1999; Krane, Granter, Trask et al, 2001).

Infection with hrHPV types is associated with cervical AC and AIS in approximately 90 percent of cases (Castellsague, Diaz, de Sanjose et al, 2006; El-Ghobashy, Shaaban, Herod et al, 2005).

Detecting and reporting abnormal glandular abnormalities by cytology is a difficult task. A significant number of glandular abnormalities reported by cytology are high-grade squamous lesions on histology. It is also relatively common for squamous and glandular lesions to co-exist, and a significant number of cytology-detected glandular abnormalities result in either a squamous or co-existing squamous/glandular lesion (Rabelo-Santos, Derchain, Westin et al, 2008; Irvin, Evans, Andersen et al, 2005; Saqi, Gupta, Erroll et al, 2005).

Further, AGC in a cervical cytology sample may be associated with a neoplastic condition, including AC of the cervix, endometrium, ovary or fallopian tube (Sharpless, Schnatz, Mandavilli et al, 2005; DeSimone, Day, Tovar et al, 2006; Derchain, Rabelo-Santos, Sarian et al, 2004; Dias-Montes, Farinola, Zahurak et al, 2006).

Due to these complexities, anyone with glandular abnormalities should be referred to colposcopy or a gynaecological oncologist for assessment.

Because of the high incidence of neoplasia and poor sensitivity of testing methods, once atypical glandular cells are detected then diagnostic excisional procedures may be necessary (National Health and Medical Research Council, 2005; Wright, Massad, Dunton et al, 2007).

A sample for hrHPV testing should be taken in the colposcopy clinic prior to treatment for definite or suspected AIS, if HPV testing has not already been performed in the previous 6 months. HrHPV testing is a useful adjunct in the management of cases at colposcopy in which a lesion is suspected by cytology but not confirmed by colposcopy or histology (Dias-Montes, Farinola, Zahurak et al, 2006; Saqi, Gupta, Erroll et al, 2005; Wright, Massad, Dunton et al, 2007).

Cytology report of cervical glandular abnormalities

Guideline 11: Cervical cytology report of AGC, AIS or AC

Cervical Cytology Result	Guideline	Evidence
AGC, AIS or AC	Refer to a colposcopist.	Grade B

Colposcopic assessment and treatment of glandular abnormalities

Guideline 12: Colposcopic assessment and treatment of glandular abnormalities (see Flowchart 6)

Situation	Guideline	Evidence
Assessment	<p>Undertake colposcopy assessment if cervical cytology suggests glandular abnormalities (AGC or AIS).</p> <ul style="list-style-type: none"> • If the colposcopy is satisfactory and normal, it is recommended that the cytology be reviewed. • If abnormal glandular cytology is confirmed on review, a type 3 excision as a single specimen, and dilatation and curettage (D&C) are recommended. • If abnormal glandular cytology is not confirmed on review, management should be based on an MDM decision. <ol style="list-style-type: none"> 1. If the colposcopy is satisfactory and abnormal, and consistent with cancer, a biopsy should be taken and then an urgent referral made to a gynaecological oncologist. 2. If colposcopy is satisfactory and abnormal, and suspicious of a pre-invasive neoplastic process, a type 3 excision and D&C are recommended. 3. If colposcopy is unsatisfactory, it is recommended that the cytology be reviewed. • If abnormal glandular cytology is confirmed as favouring a neoplastic process, a type 3 excision and D&C are recommended. • If abnormal glandular cytology is not confirmed on review, management should be based on an MDM decision. <p>A sample for hrHPV testing should be taken in the colposcopy clinic prior to treatment for definite or suspected AIS, if HPV testing has not already been performed in the previous 6 months.</p>	Grade B
Treatment	Undertake a type 3 excision.	Grade B

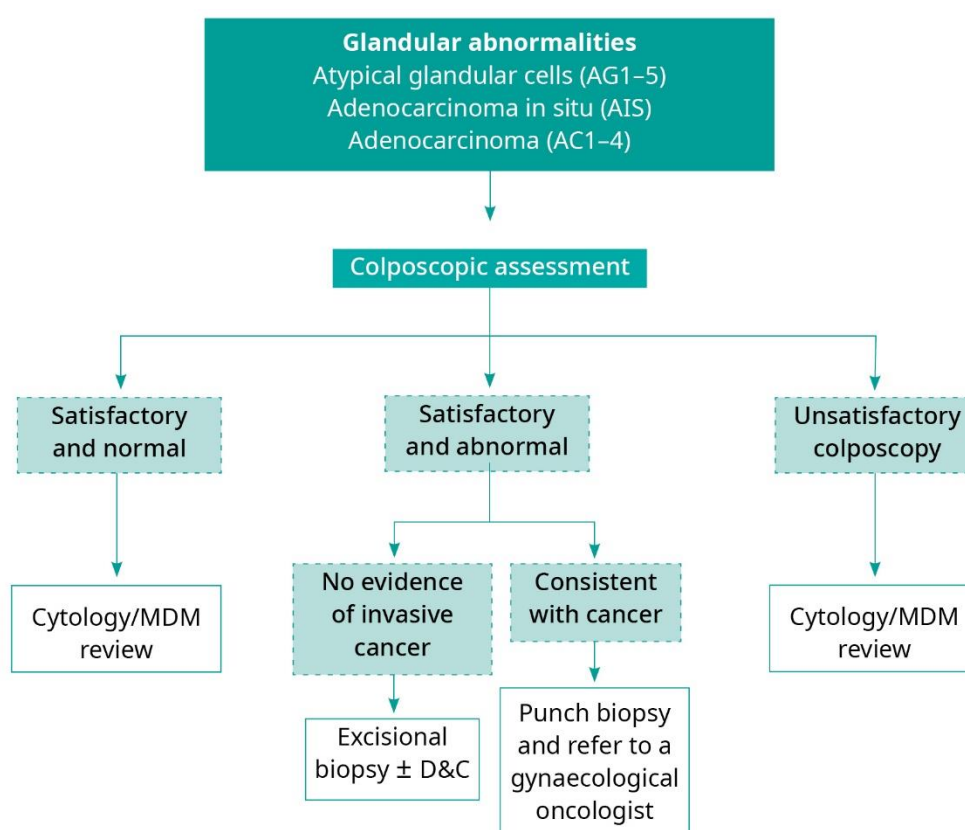
Referral for people with AC on type 3 excision or punch biopsy	Refer to a gynaecological oncologist or an oncology unit for subsequent management.	Grade B
Management of people with a cytology report of AIS	If invasive carcinoma is not identified at colposcopic assessment, a type 3 excision should be undertaken. Hysterectomy should not be undertaken without a prior type 3 excision to exclude invasive carcinoma.	Grade C
Management of people with a type 3 excision report of AIS	Management will depend on age and fertility expectations and the status of the excision margins.	Grade B
AIS treatment (with a type 3 excision) follow-up	<ol style="list-style-type: none"> 1. If the type 3 excision has positive margins on histology, further treatment should be considered. 2. If the margins are clear, follow-up colposcopy and cytology should be undertaken, including an endocervical brush sample 6 months after treatment. 3. Repeat cytology at 12 months, then annually if both tests and examinations are normal. 4. Early follow-up of symptoms is recommended. <p>HPV testing may aid follow up in colposcopy where complete excision of glandular disease has occurred: see below.</p>	Grade B
Glandular abnormalities in people who have had a total hysterectomy, with no evidence of a squamous high-grade lesion	People in this category can cease cervical screening.	Grade B

Follow-up of people with AIS

There is a lack of randomised studies of people with AIS. Under these circumstances, the recommendations within these guidelines are conservative. They are as follows.

- For people who wish to retain their fertility, the treatment goal is to have clear histological margins.
- Even when the margins are clear, the risk of recurrence can reach approximately 20 percent.
- HPV testing is more sensitive than cytology, and both are more sensitive than colposcopy. If HPV testing is undertaken and the results are negative, where there are clear histological margins there is a positive predictive value of no identifiable disease of 90 percent after one year and 100 percent after two years (Dillner et al, 2008; Koliopoulos, Nyaga, Santesso et al, 2017).

Flowchart 6: Colposcopic assessment and treatment of glandular abnormalities



AG1 Atypical endocervical cells present
 AG2 Atypical endometrial cells present
 AG3 Atypical glandular cells present
 AG4 Atypical endocervical cells favouring a neoplastic process
 AG5 Atypical glandular cells favouring a neoplastic process
 AIS Adenocarcinoma in situ

AC1 Abnormal glandular cells consistent with endocervical adenocarcinoma
 AC2 Abnormal glandular cells consistent with endometrial adenocarcinoma
 AC3 Abnormal glandular cells consistent with extrauterine adenocarcinoma
 AC4 Abnormal glandular cells consistent with adenocarcinoma
 AC5 Abnormal cells consistent with a malignant neoplasm

Special clinical circumstances

Pregnancy

Colposcopy is safe for both baby and mother in the prenatal period; if indicated, a referral to colposcopy should be made during pregnancy. It is unlikely that a biopsy or treatment would be undertaken during pregnancy, but colposcopic assessment can exclude the presence of invasive cervical cancer and provide reassurance.

The risk of progression of HSIL to invasive cancer during pregnancy is low (National Health and Medical Research Council, 2005; Hunter, Bradley, Monk et al, 2008). However, some studies have found a high probability that a high-grade lesion will persist during pregnancy (Kaplan, Dainty, Dolinsky et al, 2004; Palle, Bangsbo, Andreasson, 2000), pointing to the need for continued colposcopic and cytological surveillance during the pregnancy (at about 20–30 weeks) and postpartum period (after 6 weeks) (National Health and Medical Research Council, 2005; Wright, Massad, Dunton et al, 2007). Other studies show a high rate of regression (Yost, Santoso, McIntire et al, 1999).

In the prenatal period colposcopy should be undertaken by a colposcopist experienced in assessing the pregnant cervix (National Health and Medical Research Council, 2005).

Treatment of HSIL during pregnancy has been associated with complications and a high rate of recurrence or persistence (National Health and Medical Research Council, 2005; Wright, Massad, Dunton et al, 2007; Hunter, Bradley, Monk et al, 2008). Therefore, the only indication for treatment in pregnancy is suspicion of invasive cancer.

Guideline 13: Management during pregnancy

Situation	Guideline	Evidence
Cervical screening during pregnancy	<p>Take cytology tests according to these guidelines.</p> <p>A cervical sample can be taken at any time during pregnancy, particularly if the person has never been screened, is overdue for a test, has an abnormal screening history and is due for a test, or if there have been specific indications or recommendations for a follow-up test. If the person has a normal screening history, a decision may be made to delay screening until 3 months postpartum.</p> <p>After delivery, it is recommended that cervical screening is delayed until 3 months postpartum, to allow the changes associated with pregnancy to resolve.</p> <p>If a person is screened when postnatal and/or breastfeeding, a course of vaginal oestrogen cream nightly for 2–3 weeks is recommended prior to the test.</p>	Grade B

Situation	Guideline	Evidence
Evaluation of an abnormal cervical cytology result during pregnancy	<p>Low-grade cytologic lesions should be managed in the same way as they are in those who are not pregnant; that is, with a repeat cytology test after 12 months for people under 30 years of age, and either repeat cytology or referral to colposcopy (depending on the result of the hrHPV triage test) for people aged 30 and over.</p> <p>Refer people with high-grade lesions for colposcopy.</p>	Grade B
Colposcopy during pregnancy	<p>The aims of colposcopy during pregnancy are to exclude the presence of invasive cancer and provide reassurance that the pregnancy will not be affected by an abnormal cervical cytology result.</p> <p>Biopsy of the cervix in pregnancy is indicated if invasion is suspected at colposcopy. If invasion is not suspected, it may be appropriate to defer biopsy of the cervix until after delivery.</p> <p>Note: Following initial colposcopy, further colposcopic evaluation may be indicated during the pregnancy.</p>	<p>Grade B</p> <p>Grade C</p>
Treatment of a high-grade lesion during pregnancy	With the exception of invasive cancer, definitive treatment of a high-grade lesion may be safely deferred until after delivery.	Grade B

People under 25 years

Compared to a population of people who were unscreened under the age of 25 years, screening asymptomatic people under the age of 25 does not lower their risk of developing cervical cancer before the age of 30 (Sasieni, Castanon, Cuzick, Snow, 2009).

CIN lesions are common among sexually active people in this age group and frequently regress (Moscicki, Shiboski, Hills et al, 2004).

People with symptoms should be examined and have a cytology test as part of the clinical investigation, regardless of whether or not the test is due. This is a diagnostic test and not a cervical screening test per se. The result is recorded on the NCSP Register.

The prevalence of HPV infection is high in people under 25 years and is transient for the great majority of people in this age group.

People who have started screening under 25 years continue on the cervical screening recall pathway. That is, if the first cytology screening test result is normal, the test should be repeated in 12 months. It should also be repeated in 12 months if the first cytology screening test is a low-grade (ASC-US or LSIL) result. Referral to colposcopy is indicated after a high-grade cytology result, or after a low-grade cytology result where there has been a previous abnormal cytology or histology result within the last five years.

Symptomatic patients who remain undiagnosed after a review of swab results and contraception, and who have normal or low-grade cytology tests, are best seen for initial assessment in a general gynaecology clinic and not referred directly for colposcopy: See 'Postcoital bleeding in people under 25' and 'Assessment and management of persistent abnormal vaginal bleeding' below.

Guideline 14: People aged under 25 years who have commenced screening

Situation	Guideline	Evidence
People who have already been screened under 25 years of age (including those with normal cytology)	Recall for screening and refer and manage this group according to these guidelines; that is, recall and management is the same as for people aged 25–69 years.	
Management of HSIL (CIN 2) on histology only (not HSIL (CIN 3))	<p>If a person aged under 25 years is screened and HSIL (CIN 2) is found on histology, management should be individualised and include MDM review of cytology and histology results.</p> <p>If agreed by MDM review, careful colposcopic observation at 4–6-month intervals for up to 12 months may be appropriate, provided colposcopy is satisfactory, given the high rate of resolution of HSIL (CIN 2) in this age group. This applies for histologically confirmed HSIL (CIN 2) lesions only, not HSIL (CIN 3).</p> <p>A repeat biopsy is recommended if the colposcopic appearance of the lesion worsens, or if HSIL (CIN 2) persists.</p> <p>After two consecutive colposcopies where colposcopic assessment, histologic biopsy and cytology are all normal (negative), people under 25 years can return to three-yearly cytology screening.</p> <p>Treatment is recommended if HSIL (CIN 3) is subsequently identified, or if HSIL (CIN 2) persists for 12 months.</p>	Grade B

Abnormal vaginal bleeding in people under 25 years

Abnormal vaginal bleeding (either postcoital or intermenstrual bleeding) is relatively common in the 20–24-year age group, although New Zealand data on the number of people presenting to primary care with this issue is not available. An unpublished dataset from Scotland in 2017 estimated that around 1 in 600 people per year aged 20–24 presented with postcoital bleeding. Intermenstrual bleeding is more common; 0.5–1 percent of people in this age group present with this issue each year. Applying these estimates, we would expect that approximately 800 people would present with postcoital bleeding in New Zealand each year, and 1,600 people would present with intermenstrual bleeding.

In people under 25 years, the most common cervical causes of abnormal bleeding are chlamydia infection, an ectropion associated with contraception, other contraception issues and cervical polyps.

It is noted that cervical cancer is rare in people aged under 25. The number of cases should fall further as a result of HPV immunisation.

A hallmark symptom of cervical cancer is postcoital bleeding (Munro, Critchley, Fraser, 2011). Appropriate investigations should be undertaken in primary care to consider the cause of abnormal bleeding prior to referral to secondary care. People presenting with bleeding should have a thorough history (menstrual, contraceptive and sexual), and also cytology testing.

The critical intervention is a speculum and pelvic examination. Delay in diagnosis is often secondary to delayed examination of the cervix and pelvis after self-referral for abnormal bleeding.

Assessment and management of people with persistent abnormal vaginal bleeding

Introduction

This section has been included in the guidelines to assist medical practitioners in primary care in the assessment and management of people with intermenstrual or postcoital bleeding.

Parts of this section do not specifically relate to the cervical screening pathway (for example, reference in this section is made to colposcopy and biopsy of the vulva, information pertaining to which is not recorded on the NCSP Register). Inclusion of information about the management of people with conditions that are not related to the cervix or vagina is provided in this section to assist practitioners with referral decisions to colposcopy or gynaecology.

It is recognised that individual DHBs have pathways for the management of abnormal bleeding. This section is not meant to supersede those pathways, but provide a general guide. Where there is any doubt or concern, clinicians should consult their DHB gynaecology service.

The Royal Australian and New Zealand College of Obstetrics and Gynaecology publishes guidance on the investigation of intermenstrual and postcoital bleeding (RANZCOG, 2018).

The most important message from this section is that symptomatic people need to be examined.

Causes

Intermenstrual bleeding and other irregular bleeding patterns are common. Although most people investigated for abnormal vaginal bleeding do not have serious disease, abnormal vaginal bleeding can be associated with genital tract malignancy and premalignant conditions, as well as other conditions and iatrogenic causes (FSRH, 2015; Bahamondes, Ali, 2015).

Postcoital bleeding in particular warrants investigation, because it may be a symptom of cervical cancer (Munro, Critchley and Fraser, 2011).

Causes of abnormal bleeding may be:

- ovulatory
- vulval or labial (eg, herpes simplex, genital warts)
- vaginal (eg, atrophic vaginitis, adenosis, tumours, trauma, foreign bodies, sexual abuse)
- cervical (eg, cervicitis-infection (including hrHPV, chlamydia), a cervical ectropion associated with contraception, cervical polyps, cancer)
- endometrial
- leiomyomas
- adenomyosis
- coagulopathies.

Assessment and management – refer to Flowchart 7

1. Any person with persistent unexplained vaginal bleeding requires appropriate investigation. Obtain a thorough history (menstrual, contraceptive and sexual).
2. Assess for risk factors of cervical cancer:
 - previous hrHPV
 - an abnormal screening history, never screened, or a lapse in screening
 - smoking.
3. Perform a speculum and bimanual examination, as follows:
 - Look for abnormalities of the vulva and vagina.
 - Inspect the cervix for inflammation, profuse bleeding on contact, or irregularity, including cervical polyps.
 - Check for an abnormally bulky uterus or pelvic mass.
 - Undertake a cervical cytology test if the person is unscreened or due for screening, or a cervical abnormality is suspected.

4. Screen for sexually transmitted infections (STIs), and treat them appropriately.
5. Consider a punch biopsy if there is an abnormal appearance of the vulva.
6. Follow the DHB cervical polyp pathway if there is a cervical polyp.
7. If the cytology result is normal, the cervix or vagina appear normal and STIs have been excluded, reconsider other causes, as follows.
 - If bleeding may be related to the method of contraception, manage as for abnormal menstrual bleeding.
 - Enquire sensitively about the possibility of sexual trauma having occurred; if appropriate, follow the DHB previously undisclosed sexual assault pathway.

Special recommendations are:

Clinical suspicion of cervical cancer	Undertake a cytology test. Do not delay referral to colposcopy or gynaecological oncology while waiting for the cytology result.
Postcoital bleeding in pre-menopausal people	Referral to colposcopy is <i>not required</i> if the postcoital bleeding reported relates to a single episode, the cervix is clinically normal and the cytology result is negative. If postcoital bleeding recurs or persists despite a negative cytology test, refer to gynaecology for appropriate assessment with an ultrasound report provided, if possible.
Persistent and/or unexplained intermenstrual bleeding or a chronic vaginal discharge	Undertake appropriate investigation if the person is unresponsive to treatment. Refer to gynaecology regardless of the test results.

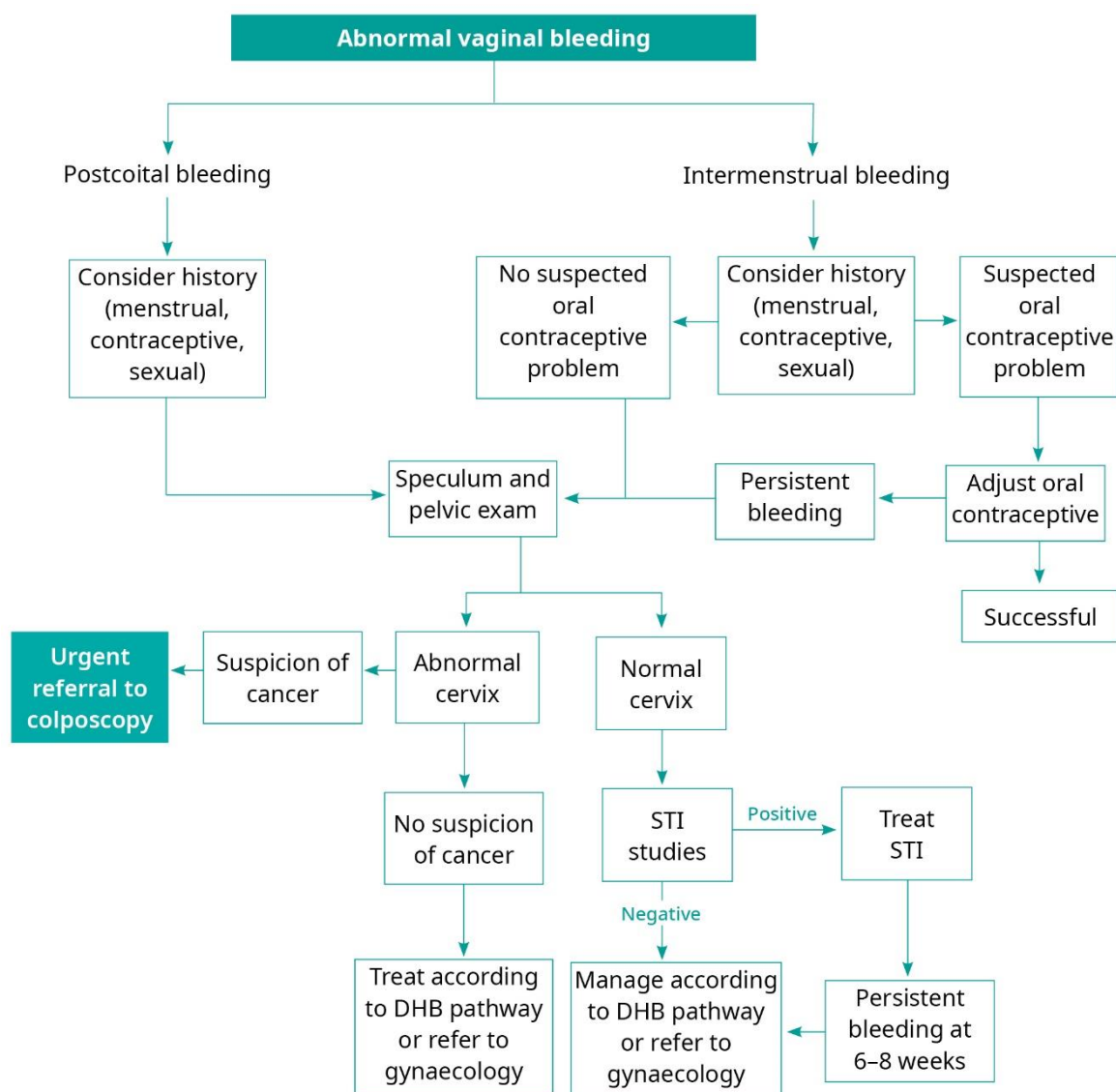
Referral

Guidelines for referral are as follows.

Urgent colposcopy or gynaecological oncology assessment	Refer if there is a clinical suspicion of cancer.
Urgent gynaecology assessment	If there is unexplained postcoital bleeding and high-risk factors for any other gynaecological malignancy refer with an ultrasound, if possible, in accordance with the DHB pathway. Include all relevant investigation results and menstrual/menopausal status in the request.

Colposcopy assessment	Refer <i>regardless of the cytology result</i> if: <ul style="list-style-type: none"> the cervix or vagina appear abnormal (and an STI and cervical polyp have been excluded) there is excessive or prolonged bleeding with the speculum examination.
Gynaecology assessment	Refer if symptoms persist longer than three months and are not thought to be related to contraceptive method or sexual trauma. Refer if there is concern regarding an abnormal vulva. Include a punch biopsy result, if available, but refer regardless of the results.

Flowchart 7: Investigation of abnormal vaginal bleeding



People over 40 years with normal endometrial cells

Note: New Zealand will soon change to the 2014 version of The Bethesda System for reporting cervical cytology, to replace the 2001 version which is currently used. Under Bethesda 2014, normal endometrial cells will be reported from the age of 45 years, rather than 40 years as at present. A specific date for this change has not been announced at the time of publication of these guidelines.

Normal endometrial cells in pre-menopausal people are rarely associated with significant pathology, and if asymptomatic no further evaluation is recommended (Wright, Massad, Dunton et al, 2007). In contrast, normal endometrial cells in people over 40 years may (rarely) be associated with significant endometrial pathology, such as endometrial carcinoma, and in this case further assessment is recommended (Wright, Massad, Dunton et al, 2007).

The management of people 40 years or older with normal endometrial cells in a cervical cytology sample in the absence of any other cellular abnormality is determined clinically by the sample taker/clinician, who should consider factors such as menstrual history, post-menopausal bleeding, hormone replacement therapy and other relevant clinical conditions (Saqi, Gupta, Erroll et al, 2005; Greenspan, Cardillo, Davey et al 2006; Saad, Takei, Yulin, 2006; Peto, Gilham, Deacon et al, 2004; Simsir, Carter, Elgert et al, 2005).

Atypical endometrial cells have a high correlation with endometrial pathology.

Guideline 15: Cervical cytology report of normal endometrial cells in people over 40

Cervical Cytology Result	Guideline	Evidence
Normal endometrial cells in people over 40 years	It is recommended that this finding be correlated with symptoms of uterine pathology (eg, abnormal bleeding) and with histology specimens where possible. A person with symptoms of uterine pathology requires investigation regardless of the cervical cytology result.	Grade B
Atypical endometrial cells (at any age)	Undertake an urgent referral to gynaecology.	Grade A

Immune deficiency

Background

There are two groups for whom there is definite evidence of both an increased risk of cervical lesions and more rapid progression of established lesions: people with human immune-deficiency virus (HIV) and people with solid organ transplants on immunosuppressive therapy. Current literature defines these groups as sufficiently immune-deficient to warrant more frequent screening and a lower threshold for colposcopy referral than the general population (Kjær, Frederiksen, Munk et al, 2010).

The following recommendations are based on the evidence that applies to people with HIV and solid organ transplant recipients. Most studies date from the time that retroviral treatment was withheld until CD4 counts were low.

People with immune deficiency who are or have ever been sexually active should be screened with cytology as soon as the immune deficiency is diagnosed.

It may be appropriate to consider using the screening strategy described in this section for people with immune deficiency due to other diseases and/or those taking immunosuppressive drugs, or people with primary immune-compromising disease (refer below to the table entry 'Other immune deficient groups that may require special consideration'). For these people, clinicians should decide on a case-by-case basis whether or not to screen more frequently because of immune deficiency.

The available evidence is insufficient to determine the optimal cervical screening strategy for people who are immune-deficient. The recommendations set out here reflect a cautious approach, until further data becomes available. The evidence does show the following.

- The five-year risk in the general population of people who have a negative hrHPV test is the same as the risk in people with HIV who have a negative test.
- There is a greater risk of HSIL (CIN 2) or HSIL (CIN 3) in immune-deficient people with hrHPV.

Because of the wide range of levels of disease severity and of types and lengths of immune-suppressive treatment, clinicians will need to apply these recommendations with some flexibility.

Guideline 16: Immune deficiency

Colposcopic Assessment	Guideline	Evidence
Immune deficiency with normal cervical cytology results	Annual screening is recommended because of the high risk of persistent HPV infection.	Grade B
Immune deficiency with abnormal results (ASC-US, LSIL, ASC-H, HSIL, AGC)	Refer for colposcopy, even for a low-grade lesion, because cytological surveillance alone may be inadequate. A colposcopist should undertake assessment and treatment.	Grade B

Colposcopic Assessment	Guideline	Evidence
	<p>The whole of the lower genital tract will need evaluation, because of the HPV risk factors that also apply to the vulva and perianal area.</p> <p>People with histologically confirmed abnormalities should be treated in the same way as people who are not immune deficient. In addition, the following points apply.</p> <ul style="list-style-type: none"> • Treatment of the cervix should be by excisional methods. • Follow-up after treatment should include colposcopy as well as cytology. <p>Cytological follow-up should be annual and indefinite.</p>	

Special recommendations for people with immune deficiency

Recommendation	Guideline
Screening before solid organ transplantation	<p>Review the cervical screening history of people aged 25–69 when they are added to the organ transplant waiting list and while they remain on the waiting list, to confirm they are up-to-date with recommended screening.</p> <p>Screening is required in people who are overdue for screening or become due while on the waiting list.</p> <p>Any abnormalities must be investigated or treated as necessary before transplantation and the start of immunosuppressive therapy.</p>
Screening people with a new diagnosis of HIV	<p>Review the cervical screening history of people aged 25–69 who have a new diagnosis of HIV to confirm they are up-to-date with recommended screening, and then screen annually.</p>
Other immune deficient groups that may require special consideration	<p>The groups listed below could be considered for screening in accordance with the recommendations for HIV-positive people and solid organ transplant recipients:</p> <ul style="list-style-type: none"> • people with congenital (primary) immune deficiency • people who are being treated with immunosuppressant therapy for autoimmune disease (eg, inflammatory bowel disease, systemic lupus erythematosus, rheumatoid arthritis, neuromyelitisoptica, sarcoidosis) • allogenic bone marrow transplant recipients treated for graft versus host disease.

Recommendation	Guideline
	Note: If the decision is made that annual screening is indicated, providers can contact the Register Central team on 0800 506050 to add a medical condition of immuno-deficiency which will flag the record as requiring annual screening.
Regular screening of people who are immune deficient	Educate people who are immune deficient about the increased risk of cervical lesions and encourage attendance for regular screening.
Screening young people with long-term immune deficiency	Advise young people who are sexually active and who have been immune deficient for more than five years to start screening before 25 years (regardless of HPV vaccination status).

Hysterectomy

Guideline 17: Hysterectomy

Situation	Guideline	Evidence
Sub-total hysterectomy (Part or all of the cervix remains in situ) for documented benign reasons	Screen routinely according to these guidelines.	Grade B
Total hysterectomy (complete removal of the uterus and cervix) for documented benign reasons	<p>People with a normal screening history in the 5 years preceding the hysterectomy do not require further vaginal vault cytology testing.</p> <p>People who have had no cervical screening in the last 5 years, or who have an unknown or undocumented screening history should have a vaginal vault cytology sample taken. If this is normal, no further vaginal vault cytology is required.</p>	Grade B
Total hysterectomy with LSIL (CIN 1) (cytology or histology) in the previous 5 years, and no LSIL in the hysterectomy specimen	<p>People who were returned to 3-yearly screening prior to their hysterectomy require no further vaginal vault cytology.</p> <p>People who were not returned to 3-yearly screening prior to their hysterectomy require two vault samples taken 12 months apart; they can cease screening if both are negative.</p>	Grade C

Situation	Guideline	Evidence
Total hysterectomy with LSIL in the hysterectomy specimen	Take two vault cytology samples 12 months apart. Screening can cease if both are negative.	
Total hysterectomy with previous HSIL (CIN 2 or 3)	<p>The guidelines for a high-grade abnormality apply.</p> <p>People with previous cytological or histological evidence of a possible or definite high-grade squamous lesion who have not completed a test of cure prior to their hysterectomy should have a test of cure. If HPV testing and cytology (co-testing) are negative on two occasions 12 months apart (ie, the test of cure is successful), they can return to 3-yearly vaginal vault screening.</p> <p>People with a pre-neoplastic high-grade squamous lesion identified in the hysterectomy specimen should be managed in the same way.</p> <p>Until a test of cure is successfully completed, recall people in this category for annual vaginal vault cytology.</p>	<p>Grade B</p> <p>Grade C</p>
Total hysterectomy for genital/cervical malignancy	People with genital/cervical cancer are not subject to these guidelines. This group should be under ongoing surveillance from an oncologist, who will provide guidance on appropriate surveillance and care.	
Cervical glandular abnormalities with no evidence of a squamous high-grade lesion and a total hysterectomy	People in this category can cease cervical screening.	Grade B

Exposure in utero to diethylstilboestrol

Diethylstilboestrol (DES) was given to pregnant women between 1940 and about 1970 to improve pregnancy outcomes, particularly in diabetic people. People who were exposed to DES in utero prior to 18 weeks' gestation are at increased risk of clear cell adenocarcinoma of the vagina and cervix, and there is some evidence of increased risk of HSIL (CIN 2/3) and cervical cancer (Paul, 2006).

This problem is diminishing, as DES has not been used in pregnancy for over 45 years.

Guideline 18: Exposure in utero to diethylstilboestrol

Situation	Guideline	Evidence
DES-exposed people	Offer annual cytological screening and colposcopic examination of both the cervix and vagina. Begin screening any time at the person's request and continue indefinitely.	
DES-exposed people with an abnormal cytology report	These people should be managed in a specialist centre by a specialist colposcopist.	

Summary of indications for cytological review

Cytological review is a key component of quality and educational improvement. A review of cytology is usually undertaken where the cytological interpretation suggests either a more significant lesion than subsequently detected by colposcopy/histology (review for false positive), or a negative cytology with a subsequent confirmed abnormality (review for false negative).

Some cases may require cytology review or cyto-histo correlation at MDMs to determine best clinical management, treatment and follow-up.

Factors such as marked inflammatory/reactive change, infection, few abnormal cells and borderline changes contribute to the subjectivity that may occasionally occur with cervical cytology.

Guideline 19: Summary of indications for cytology review

Case Review	Guideline
Cytology/case review	<p data-bbox="456 338 1362 412">Discuss individual cases involving discordance between cytology and colposcopy/histology with the reporting pathologist.</p> <p data-bbox="456 427 932 461">Initiate an MDM case discussion for:</p> <ul data-bbox="456 479 1391 786" style="list-style-type: none"><li data-bbox="456 479 995 515">• HSIL (CIN 2) in people under 25 years<li data-bbox="456 533 1391 607">• high-grade or invasive cytology and normal or low-grade histology or colposcopy<li data-bbox="456 624 1369 698">• abnormal glandular cytology and no identified lesion at colposcopic assessment<li data-bbox="456 716 1369 790">• normal colposcopic assessment of people with possible high-grade disease on cytology. <p data-bbox="456 808 1347 987">Note: For further information on cyto-histo correlations, refer to Standard 521 in Section 5 of the <i>National Cervical Screening Programme Policies and Standards Providing a Laboratory Service</i> URL: https://www.nsu.govt.nz/health-professionals/national-cervical-screening-programme/policies-and-standards.</p>

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PART C: GUIDANCE ON HPV TESTING

Introduction

This section provides guidance to health professionals on the use of hrHPV testing in New Zealand. It was developed in consultation with a multidisciplinary advisory group on HPV testing in 2010, based on studies using HPV tests that were validated by a local or internationally recognised accreditation body and/or an accredited laboratory.

Indications for HPV testing

Currently, the NCSP is based on primary screening by cytology. HPV testing is funded by the NCSP for three specific clinical indications identified within the guidelines. In summary, these are:

1. HPV triage in people 30 years and over who have ASC-US or LSIL cytology and who have not had a cervical abnormality in the previous five years (see Flowchart 1: Management of low-grade abnormalities: ASC-US or LSIL on page 25).
2. Test of cure (see the definition below):
 - follow up of people treated for high-grade lesions in the past three years (see Flowchart 4 on page 32), and follow-up of people with HSIL (CIN 2/3)/ASC-H more than three years previously, subsequent negative cytology and non-completion of a test of cure (see Flowchart 5 on page 33)
 - follow-up of people with a cytology result of possible or definite high-grade squamous lesion, where no high-grade lesion has been found on investigation
 - follow-up of people who have had a total hysterectomy and previous HSIL (CIN 2) or HSIL (CIN 3) where the person had not successfully completed a test of cure prior to the hysterectomy
3. Specialist testing – the management of people seen at colposcopy, particularly to assist with managing discordant results.

See also the summary table that follows - 'Summary of indications for HPV testing'.

Test of cure definition

A test of cure is HPV testing and cytology (co-testing) on two occasions 12 months apart. The person can return to three-yearly screening if HPV testing and cytology are negative on two occasions 12 months apart (ie, the test of cure is successful).

HPV testing for indications outside of the NCSP Guidelines

Until the Ministry of Health implements HPV primary screening, HPV tests sent to the laboratory from primary care must meet the current guidelines. Laboratories actively scrutinise requests for HPV testing and will reject requests for HPV testing outside the NCSP guidelines, because the NCSP does not fund such requests.

Under exceptional circumstances where HPV tests outside of the guidelines are analysed, the following applies.

- The laboratory recommendations are based on the cytology result and the previous NCSP Register record only.
- The sample taker is responsible for determining and arranging for follow-up of any hrHPV test results performed outside NCSP guidelines.
- Arrangements between the requester and the reporting laboratory to cover the cost of the test should be negotiated before the test is performed.

Summary of indications for HPV testing

Type	Summary	Reason	Testing	Who orders the test?
HPV triage	People 30 years and older with ASC-US or low-grade changes who have not had an abnormality in the previous five years	To determine triage to colposcopy based on the risk of progression, or potential detection of an underlying high-grade lesion that requires treatment	HrHPV (reflex) test using the same LBC sample	The laboratory automatically adds on the hrHPV test
Test of cure	After treatment of a high-grade squamous lesion	To assess the safety of returning to 3-yearly screening	Two 'co-tests' a year apart: <ul style="list-style-type: none"> cytology + hrHPV test 6 months post-treatment repeat cytology + hrHPV test 1 year later (18 months post-treatment) Return to 3-yearly screening if all four tests are negative	The sample taker must order the hrHPV test (the laboratory cannot add it on)
	High-grade squamous lesion >3 years previously with subsequent normal annual screening			
	After a possible or definite high-grade squamous cytology result where no high-grade lesion has been found on investigation			
	After a total hysterectomy and previous HSIL (CIN 2 or CIN 3)			
People seen at colposcopy	To assist managing people with discordant results		One hrHPV test	The specialist orders the test. This role cannot currently be delegated to staff in general practice to order the hrHPV test on their behalf at a later date

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APPENDICES

Appendix 1: Advisory and working group members

Clinical Practice Guidelines for Cervical Screening in New Zealand 2020

Dr Howard Clentworth, NCSP clinical lead for colposcopy and Dr Margaret Sage, NCSP clinical lead for pathology provided advice on the updated version of these guidelines. Feedback was sought from the sector and the national NCSP Register office.

Dr Gary Fentiman, previous NCSP clinical lead for colposcopy also contributed to this document.

2008 Guidelines for Cervical Screening in New Zealand

The following people provided advice on the 2008 guidelines and the 2010 update to the guidelines.

Professional/sector group representatives

Dr Gary Fentiman (chair), obstetrician and gynaecologist

Barbara Beckford, NSU consumer representative group representative

Naomi Brewer, epidemiologist

Dr Alison Denyer, general practitioner

Dr Peter Fitzgerald, cytopathologist

Dr Donna Hardie, obstetrician and gynaecologist

Mr Torben Iversen, obstetrician and gynaecologist

Dr Mona Jeffreys, epidemiologist

Dr Peter Sykes, gynaecological oncologist

Dr Ai Ling Tan, gynaecological oncologist

Dr Mee-ling Yeong, cytopathologist

New Zealand Guidelines Group representatives

Anne Lethaby

Jane Marjoribanks

National Cervical Screening Programme representatives

Dr Hazel Lewis, clinical leader

Dr Debbie Holdsworth, project manager

Diane Casey, senior analyst

Jane McEntee, programme manager

Members of the HPV testing working group, 2010

Professional/sector group representatives

Dr Peter Bethwaite (chair), pathologist
Barbara Beckford, NSU consumer reference group representative
Dr Collette Bromhead, virologist
Dr Kitty Croxson, virologist
Dr Gary Fentiman, obstetrician and gynaecologist
Dr Helen Gemmell, general practitioner
Dr Lance Jennings, virologist
Jennifer Lindeman, Medical Laboratory Science Board
Dr Richard Lloyd, pathologist
Dr Richard Massey, pathologist
Marilyn Rosewarne, registered nurse
Dr Andre Smith, obstetrician and gynaecologist
Dr David Wilde, obstetrician and gynaecologist

NSU representatives

Dr Hazel Lewis, clinical leader, NCSP
Dr Harold Neal, scientific advisor, NCSP
Diane Casey, programme manager, NCSP
Anna Maxwell, senior policy analyst, cancer screening

Lead colposcopist participants at a combined meeting also included Dr Nasser Shehata, Dr Jay Sirsena, Dr Edwin Ozumba and Dr Helene McNab.

Appendix 2: AGREE tool

This tool was used for the appraisal of five evidence-based guidelines on the management of cervical abnormalities. The scoring system ranges from 1 to 4 stars: 1 star is 'strongly disagree' and 4 stars 'strongly agree'. AGREE questions 8–14 represent the 'Rigour of Development' domain. Source: The AGREE Collaboration, 2001.

	United Kingdom	ICSI*	Australia	ASCCP**	Ontario
1. The overall objectives of the guideline are specifically described	****	**	****	****	**
2. The clinical questions covered by the guideline are specifically described	***	***	****	**	****
3. The patients to whom the guideline is meant to apply are specifically described	***	****	****	****	****
4. The guideline development group includes individuals from all the relevant professional groups	**	****	****	****	***
5. The patients' views and preferences have been sought	*	*	***	*	*
6. The target users of the guideline are clearly defined	***	***	***	***	***
7. The guideline has been piloted among target users	*	*	****	**	*
8. Systematic methods were used to search for evidence	*	*	****	***	****
9. The criteria for selecting the evidence are clearly described	*	*	****	****	****
10. The methods used for formulating the recommendations are clearly described	*	*	**	****	**
11. The health benefits, side effects and risks have been considered in formulating the recommendations	***	***	***	***	***
12. There is an explicit link between the recommendations and the supporting evidence	****	***	***	***	***
13. The guidelines has been externally reviewed by experts prior to its publication	*	*	****	****	****
14. A procedure for updating the guideline is provided	NR	****	****	NR	NR
15. The recommendations are specific and unambiguous	****	***	****	***	****
16. The different options for management of the condition are clearly presented	****	***	****	****	**
17. Key recommendations are easily identifiable	****	***	****	****	****
18. The guideline is supported with tools for application	*	*	**	*	*
19. The potential organisational barriers in applying the recommendations have been discussed	*	***	***	*	*
20. The potential cost implications of applying the recommendations have been considered	*	*	***	*	*
21. The guideline presents key review criteria for monitoring and/or audit purposes	****	****	****	*	*

	United Kingdom	ICSI*	Australia	ASCCP**	Ontario
22. The guideline is editorially independent from the funding body	NR	NR	NR	NR	NR
23. Conflicts of interest of guideline development members have been recorded	*	****	*	****	****

*Institute of Clinical Systems Improvement, Minnesota.

**American Society for Colposcopy and Cervical Pathology